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# NUMBER LESSONS.

A BOOK FOR SECOND AND THIRD  
YEAR PUPILS.

BY

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## PREFACE.

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THIS book has been prepared with a view of avoiding the evils that result from using the blackboard alone for number work. It is intended to be put into the hands of pupils at the beginning of the second year (or when they have mastered all combinations to 10), and used for two years.

It has been the special aim to use only such words as children can read easily, and in Chapter I. the few difficult words that appear in the lessons are placed at the top of each page for development. It will be noticed that many of these words are used together with their plurals. There is no better time for teaching the language of plurality than when children are studying numbers; and so many of our common English words have irregular plurals, that it seems necessary to master them before a child can use a number book intelligently.

In the first and second chapters the word (Picture) is used after such problems as can be illustrated. The children should sketch the picture before trying to solve the problem. This should not be neglected. In the third and fourth chapters the word (Illustrate) is substituted for (Picture).

After an occasional abstract combination, the word (Problem) appears throughout the book. In these cases it is intended that the pupils shall be required to construct original problems, in which the language used shall involve the

operations indicated. This work can be increased at the pleasure of the teacher.

It is not claimed that the book contains enough abstract work. Only enough of such work is used to indicate the nature and variety of the abstract drill that the children should have. The teacher should give very much more, in addition to what is in the book, especially in Chapters III. and IV.

The pages of Sight Work, Drill Work, and Test Work explain themselves. It has been the aim to classify the simple problems together under the head of Sight Work, so that they might be solved mentally. Do not use a pencil on any problems that can be solved without it. Additional problems of this kind should be given by the teacher.

Let the Drill Work be kept up faithfully. No time is gained by neglecting this, with a view of getting over the course. Let the combinations already learned be drilled upon so thoroughly that pupils can give ready and correct answers as rapidly as questions may be asked.

These pages contain the number lessons as daily used in the schools of Syracuse, N.Y. Grateful acknowledgment is due, and is hereby tendered, the teachers of the second and third grades for kindly contributing their lesson work, without which this book could not have been produced.

CHAS. E. WHITE,  
*Franklin School, Syracuse, N.Y.*

## SUGGESTIONS TO TEACHERS.

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### CHAPTER I. develops numbers from 10 to 20.

The fractions  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$  (with 1 for numerator) are used with only such numbers as give integral results. All whole numbers are to be written to 50, including Roman numerals. Before putting the book into the pupils' hands, the teacher should teach them how to put down work by using a great number of simple problems involving all the varieties of work contained in the chapter. Pupils should be able to read all problems readily before attempting to solve them.

Chapter II. deals with numbers from 20 to 40, and uses  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$ , as in Chapter I. Whole numbers, including Roman numerals, are written to 100. Toward the end of the chapter the work of "carrying" (so called) should be commenced in addition and subtraction.

Chapter III. continues the work in the fundamental rules with one figure in the multiplier or divisor, and the finding of even fractional parts, using 1 for the numerator, to  $\frac{1}{10}$ . Numbers from 40 to 100 are applied in the problems, and numbers to 500 are written in both Arabic and Roman.

The pupils should be thoroughly proficient in the process of "carrying" in addition, subtraction, multiplication, and division before they begin the chapter. They should also know the use of the dollar sign and the decimal point.

Chapter IV. continues the fundamental rules and fractions by the use of 1, 2, and 3 for numerators, and any number not exceeding 12 for a denominator, taking such fractional parts as will give results in whole numbers only. Short division with 12 or less for a divisor. Numbers to 1000 are applied by using the Money table, Liquid Measure to gallons, Dry Measure to bushels, Avoirdupois Weight to and including pounds, and Long Measure to yards.

## CHAPTER I.

### Lesson 1.

[NOTE.—See suggestions to teachers.]

four	slate	nest	nine
five	chair	eight	many

1. How many boys are 5 boys and 3 boys ?
2. Three eggs and 4 eggs are how many eggs ?
3. How many are six tops and 3 tops ?
4. How many are 3 hens and 7 hens ?
5. Two cats and four cats are how many cats ?
6. Five books and two books are how many books ?
7. Four hats and six hats are how many hats ?
8. One slate and nine slates are how many ?
9. 3 chairs and 5 chairs are how many chairs ?
10. Six balls and three balls are how many balls ?
11. Five and two are how many ?
12. Seven and three are how many ?
13. How many are four and four ?
14. May had three cents, and I gave her 8 cents ; how many cents did she have then ?
15. John found 4 eggs in one nest and six in another ; how many eggs did he find ?
16. James had 7 cents and found 4 more ; how many cents did he then have ?

**Lesson 2.**

seven  
eight

eleven  
chairs

apples  
girl

1. Eight boys less 5 boys are how many boys ?
2. Seven eggs less three eggs are how many eggs ?
3. 9 tops less three tops are how many tops.?
4. 6 cats less 2 cats are how many cats ?
5. 7 books less 5 books are how many books ?
6. 10 hats less 4 hats are how many hats ?
7. 10 slates less 1 slate are how many slates ?
8. How many chairs are 8 chairs less 3 chairs ?
9. How many balls are 10 balls less 6 balls ?
10. How many dogs are 6 dogs and 5 dogs ?
11. 11 days less 4 days are how many days ?
12. Seven apples and 4 apples are how many apples ?
13. 11 balls less 5 balls are how many balls ?
14. 8 cows and 3 cows are how many cows ?
15. 11 less 5 are how many ?
16. 10 less four are how many ?
17. How many are 11 less 6 ?
18. John had 11 cents. He spent 4 cents ; how many cents had he left ?
19. May had 10 apples. She gave 4 to a poor girl ; how many had she then ?
20. A boy had 11 tops and sold 4 of them ; how many tops did he have left ?
21. 11 dots less 3 dots are how many dots ?

**Lesson 3.**

nickel	wings	knife	blade
orange	birds	knives	pieces

1. Two threes are how many ?
2. Four twos are how many ?
3. How many cents in two nickels ?
4. A cat has 4 feet. How many feet have 2 cats ?
5. If one orange cost 3 cents, what will 3 oranges cost ?
6. How many wings have 5 birds ?
7. If there are three trees in a row, how many trees in 3 rows ? (Picture.)
8. Two times 4 cents are how many cents ?
9. 3 times three apples are how many apples ?
10. How many eggs are 3 times 2 eggs ?
11.  $3 \times 2$        $2 \times 4$        $5 + 6$        $11 - 6$
12.  $4 \times 2$        $3 \times 3$        $3 + 5$        $9 - 4$
13.  $5 \times 2$        $5 \times 1$        $8 + 4$        $10 - 6$
14.  $2 \times 5$        $9 \times 1$        $4 + 5$        $8 - 3$
15. What will 5 tops cost if 1 top cost 2 cents ?
16. Five two-cent pieces are how many cents ?
17. What will 2 balls cost at 2 cents apiece ?
18. How many hands have four boys ?
19. If one knife has two blades, how many blades have 5 knives ?
20. Add 3, 4, 2, 1;    2, 3, 4, 2.

**Lesson 4.**

mouse	oranges	nickels	pencils
mice	pieces	dime	each

1. How many twos in eight?
2. How many threes in ten, and how many over?
3.  $\frac{1}{2}$  of 10 men are how many men?
4. Two mice have 8 feet. How many feet has one mouse?
5. If 4 oranges cost 8 cents, how many cents does one orange cost?
6. If 3 balls cost 9 cents, what is the cost of 1 ball?
7. How many nickels in a dime?
8. How many two-cent pieces in ten cents? In 8 cents?

9. $2\overline{)10}$	4)8	3)9	5)10
2)8	3)6		

10.  $3 \times 3$
11.  $8 - 6$
12.  $5 + 3$
13.  $7 + 2$
14. If 5 pencils cost 10 cents, what does one pencil cost?
15. Put 8 sheep in 4 pens. How many in each pen? (Picture.)
16. How many two-cent stamps can I buy for 8 cents?

**Lesson 5.**

ox	1 sheep	knife	goose
oxen	3 sheep	knives	geese

1. Eight boys and one boy are how many boys?
2. One ox and 5 oxen are how many oxen?
3. If 1 sheep costs \$3, what will 3 sheep cost?
4. How many knives can I buy for \$10, if one knife costs \$2?

5. If 4 geese cost \$8, what does 1 goose cost?

6.	Add	3	5	6	5	7	3	5
		<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>3</u>	<u>0</u>	<u>4</u>

7.	8	9	10	10	9	6	8
	<u>-3</u>	<u>-5</u>	<u>-6</u>	<u>-10</u>	<u>-6</u>	<u>-3</u>	<u>-2</u>

8.	$4 \times 2$	<small>(Prob-lem)</small>	$8 \times 1$	$2 \times 4$	$10 \times 0$	$2 \times 3$
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9.	$6 \times 1$	$3 \times 3$	<small>(Prob-lem)</small>	$5 \times 2$	$10 \times 1$	$8 \div 4$
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10.	$5 \underline{) 10}$	$4 \underline{) 8}$	$3 \underline{) 6}$	$2 \underline{) 10}$	$4 \underline{) 4}$	$2 \underline{) 8}$
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11. Mary has two dolls, and Annie has nine. How many have both?

12. There are 5 chairs in one row and 6 in another. How many chairs in all?

13. John had 10 balls and lost three; how many had he left?

14. How many cents are 2 cents, 3 cents, and 5 cents?

15. How many boys are 2 boys, 4 boys, and 5 boys?

**Lesson 6.**

piece	money	nickel	marbles
pieces	years	twice	left

1. Name 3 pieces of money that will make 9 cents.
2. May is 5 years old, James is twice as old ; how old is James ?
3. If a top costs 4 cents, and a marble 5 cents, how many cents will both cost ?
4. If 1 paper costs 3 cents, how many can I buy for 9 cents ?
5. How many legs have a hen, a horse, and a dog ?
6. Mary had a nickel, Fred had a 3-cent piece, and Lucy had a 2-cent piece. How much had they all ?
7. Frank had 10 marbles ; he gave  $\frac{1}{2}$  of them away. How many had he left ?
8. Add    3      4      3      2      2      2      5  
           2      2      3      4      2      1      3  
           1      3      3      1      2      3      2  
       —      —      —      —      —      —      —
9.  $\frac{1}{2}$  of 10 (Problem)     $\frac{1}{3}$  of 9       $\frac{1}{5}$  of 10 (Problem)     $\frac{1}{2}$  of 8
10.  $\frac{1}{4}$  of 8                   $\frac{1}{4}$  of 4                   $\frac{1}{2}$  of 6                   $\frac{1}{3}$  of 6
11.  $3 + 2 - 1 = ?$  (Prob-lem)     $7 - 4 + 5 = ?$      $3 \times 2 + 3 = ?$
12.  $8 + 2 - 6 = ?$                    $5 + 3 - 4 = ?$                    $2 \times 2 - 4 = ?$  (Prob-lem)
13.  $3 \times ? = 6$                    $8 \div ? = 4$                    $5 + ? = 9$
14.  $4 \times ? = 8$                    $6 + ? = 3$                    $10 - ? = 6$  (Problem)

**Lesson 7.**

child	pencils	pear	half	square
children	pocket	nickel	halves	squares

1. If one child has two eyes, how many eyes have four children ?
2. A boy had 3 pencils in one pocket, and 6 in another ; how many had he in both ?
3. One ball costs two cents. How many cents will 3 balls cost ?
4. If a pear costs a nickel, and a pencil 3 cents, what will both cost ?
5. How much money in five two-cent pieces ?
6. If one lemon costs 3 cents, how many lemons can I buy for 9 cents ?
7. How many cents in two half-dimes ?
8. How many cents in a dime ?
9. How many halves in one apple ? In 3 apples ?
10. Fold a square paper into 9 small squares. How many squares on each side ?  
Make two dots in four of them. How many dots did you make ? How many squares have no dots in them ?
11. How many are ten less three ?
12. How many 4's in 8 ?
13. Three in nine how many times ?
14. Three 3's are how many ?
15.  $2+2+2+2+2=$  ?

**Lesson 8.**

mouse	window	pane	candy	four
mice	quarts	panes	money	eight

1. A window had 10 panes of glass ; a boy broke 3 panes. How many were left ?
2. If a pail holds 6 quarts, and there are 5 quarts of milk in it, how many quarts more will it hold ?
3. Four teams of goats are how many goats ?
4. How many pair will 10 shoes make ?
5. There were 10 white mice in a box ; 7 ran out. How many more in the box ?
6. What 3 pieces of money make 5 cents ?
7. How many three-cent cakes can you buy for 10 cents, and how much will you have left ?
8. If a six-quart pail is half full, how many quarts in the pail ?
9. How much less than a dime is 3 cents ?
10. 3 books cost \$6. What will one book cost ?  
What will 5 books cost ?
11. I bought an orange for 3 cents and candy for 5 cents. How much money did I spend ?
12.  $\frac{1}{2}$  of 6 is what ?  $\frac{1}{4}$  of 8 is what ?
13.  $\frac{1}{3}$  of 10 is what ?  $\frac{1}{2}$  of 10 is what ?
14.  $3 \times ? = 9$ .  $9 \div 3 = ?$   $10 - 4 = ?$   $6 + 3 = ?$
15.  $? + 4 = 8$ .  $8 \div 4 = ?$   $9 - ? = 4$ .  $10 - ? = 8$ .
16. How do you find  $\frac{1}{3}$  of a number ?  $\frac{1}{4}$ ?  $\frac{1}{5}$ ?

**Lesson 9.**

east	week	seven	block
west	month	nine	blocks

1.	Add	3	(2)	6	(3)	2	(4)	5	(5)	1	(6)	4	(7)	3
		4		3		3		2		7		5		3
		<u>3</u>		<u>1</u>		<u>4</u>		<u>3</u>		<u>2</u>		<u>1</u>		<u>3</u>

8.  $5 + 3 - 1 = ?$     $3 + 3 - 2 = ?$     $2 + 2 + 2 = ?$

9.  $6 - 4 + 2 = ?$     $8 - 4 - 2 = ?$     $3 + 3 + 3 = ?$

10.  $\frac{1}{2}$  of 10,  $\frac{1}{2}$  of 6,  $3 \times 3$ ,  $5 \times 2$ .

11.  $\frac{1}{2}$  of 8,  $\frac{1}{2}$  of 9,  $4 \times 2$ ,  $8 \div 4$ .

12. Write in two ways, three, five, six, seven, eight, nine, ten.

13. Ned lives 6 blocks east of the school, and Fred 4 blocks east ; how far from Ned's to Fred's ? (Picture.)

14. John lives 4 blocks west of the school ; how far from John's to Ned's ? From Fred's to John's ? (Picture.)

15. One week and 5 days are how many days ?

16. Nellie had 5 two-cent pieces. She bought a book for 4 cents, and a pencil for 3 cents. How much money did she spend ? How much was left ?

17. May had ten cents and spent one-fifth of it for a pencil. How much did the pencil cost, and how much has she left ?

18. From three 3's take two 4's.

19. One book costs \$4 ; how much will 2 books cost ?

**Lesson 10.**

eleven	money	mouse	1 sheep
eight	nickel	mice	5 sheep

1. Ten cents and one cent are how many cents ?
2. Two nickels and a cent are how much money ?
3. Six and four and one are how many ?
4. Add any two numbers to make eleven.
5. Add any three numbers to make eleven.
6. Six apples and five apples are how many apples ? (Picture.)
7. Eight dots and three dots are how many dots ? (Picture.)
8. A week and 4 days are how many days ?
9. A boy had 11 mice and gave me 8 mice. How many were left ?
10. A man has 5 sheep in one lot and 6 sheep in another. How many sheep in both lots ? (Picture.)
11. Mary is 8 years old and Annie is 3 years older. How old is Annie ?
12. What 3 pieces of money make 11 cents ?
13.  $11 + 1$  (<sup>Prob-</sup><sub>lem</sub>)     $10 + 1$      $9 + 1$      $8 + 3$      $4 + 7$
14.  $11 + 11$      $11 - 1$  (<sup>Prob-</sup><sub>lem</sub>)     $11 - 9$      $11 - 8$      $7 + 4$
15.  $1 \times 11$      $1 + 10$      $2 + 9$  (<sup>Prob-</sup><sub>lem</sub>)     $3 + 8$      $11 + 4$
16.  $11 \times 1$      $11 - 10$      $11 - 2$      $11 - 3$      $11 - 7$
17.  $6 + 3$  (<sup>Prob-</sup><sub>lem</sub>)     $7 + 2$      $6 + 4$      $8 + 2$      $9 - 4$

**Lesson 11.**

visit

dime

eleven

week

$$1. \ 5 + 5 \begin{smallmatrix} (\text{Prob-}) \\ (\text{lem}) \end{smallmatrix} \quad 5 + 7 \quad 2 + 8 \quad 3 + 4 + 4 \begin{smallmatrix} (\text{Prob-}) \\ (\text{lem}) \end{smallmatrix}$$

$$2. \ \frac{1}{2} \text{ of } 10 \quad \frac{1}{2} \text{ of } 9 \quad 3 + 8 \begin{smallmatrix} (\text{Prob-}) \\ (\text{lem}) \end{smallmatrix} \quad 2 + 5 + 1$$

$$3. \ \frac{1}{2} \text{ of } 10 \begin{smallmatrix} (\text{Prob-}) \\ (\text{lem}) \end{smallmatrix} \quad 5 + 4 \quad 4 + 5 \quad 3 \times 3 + 2$$

$$4. \ 11 - 6 \quad 11 - 5 \begin{smallmatrix} (\text{Prob-}) \\ (\text{lem}) \end{smallmatrix} \quad \frac{1}{2} \text{ of } 8 \quad 2 \times 4 + 3 \begin{smallmatrix} (\text{Prob-}) \\ (\text{lem}) \end{smallmatrix}$$

$$5. \ \begin{array}{r} \text{Add} \end{array} \begin{array}{r} 6 \\ 5 \end{array} \quad \begin{array}{r} 7 \\ 4 \end{array} \quad \begin{array}{r} 2 \\ 9 \end{array} \quad \begin{array}{r} 1 \\ 10 \end{array} \quad \begin{array}{r} 3 \\ 8 \end{array} \quad \begin{array}{r} 7 \\ 3 \end{array} \quad \begin{array}{r} 5 \\ 5 \end{array} \quad \begin{array}{r} 6 \\ 2 \end{array}$$

$$6. \begin{array}{r} 11 \\ - 4 \end{array} \quad \begin{array}{r} 11 \\ - 6 \end{array} \quad \begin{array}{r} 11 \\ - 9 \end{array} \quad \begin{array}{r} 11 \\ - 2 \end{array} \quad \begin{array}{r} 11 \\ - 8 \end{array} \quad \begin{array}{r} 11 \\ - 3 \end{array} \quad \begin{array}{r} 11 \\ - 4 \end{array}$$

$$7. \begin{array}{r} 11)11 \\ 5)10 \\ 3)9 \\ 4)8 \\ 3)6 \\ 2)10 \\ 2)8 \end{array}$$

8. How much are 3 threes, 2 fours, 5 twos, 3 twos ?

9. Write in letters 11, 10, 9, 8, 7, 6, 5, 4.

10. May had 9 cents, Fred has 2 cents. How many cents have both ?

11. May had 11 pins. She lost 5. How many pins had she left ?

12. Willie is eleven years old. How old was he 4 years ago ?

13. I went on a visit for a week and 4 days. How long did I stay ?

14. If it took a dime and 1 cent to buy a book, what would the book cost ?

15. One week and two days are how many days ?

**Lesson 12.**

farmer	chickens	brother
turkey	sister	younger

1. A farmer had 11 turkeys and sold 6 of them. How many had he left?

2. If there are two nests, with 5 eggs in each nest, how many eggs in both nests? (Picture.)

3. If George had 10 cents and gave  $\frac{1}{2}$  to his sister, how much will she have? How much will he have left?

4. Rose had 3 apples; her brother had twice as many. How many had her brother? How many had both?

5. A hen had 11 chickens; 2 were black, 4 were brown, and the rest were white. How many were white?

6. A lady bought 11 yards of cloth and used 6 yards. How many has she left?

7. May is 11 years old. Maud is 4 years younger. How old is Maud?

8.  $3 + 4 + 2$        $8 - 3 - 2$  (Problem)       $5 \times 2 + 1$

9.  $2 + 7 + 2$  (Problem)       $7 + 4 - 6$        $3 \times 3 + 2$

10.  $2 + 2 + 7$        $6 + 5 - 8$  (Problem)       $4 + 4 + 3$

11. Add 3 (12) 1 (13) 2 (14) 3 (15) 2 (16) 3 (17) 4

4	3	2	3
2	5	2	3
<u>2</u>	<u>2</u>	<u>5</u>	<u>2</u>

**Lesson 13.**

goose  
geese

man  
men

loaf  
loaves

1. A week and 3 days are how many days ?
2. I have 1 goose in a pen, 4 geese in another, and 3 geese in another. How many geese in the three pens ?
3. John gave 4 apples to James, 3 to Henry, and 4 to Julia. How many did he give in all ?
4. What will a two-cent cake and a six-cent top cost ?
5. How many days do you come to school in two weeks ?
6. Rose had 9 dolls. She gave  $\frac{1}{3}$  of them to May. How many did she give to May ? How many has she left ?
7. Fred had 2 cents, Emma 4 times as many. How many had Emma ?
8. If five men earn ten dollars, how much will one man earn ?
9. If a loaf of bread costs 3 cents, what will 3 loaves cost ?
10. How much is one-fourth of eight years ?
11. One-third of nine pounds are how many ?
12. Add    3      5      7      8      6      5      10      6  

$$\underline{3} \quad \underline{6} \quad \underline{4} \quad \underline{2} \quad \underline{4} \quad \underline{0} \quad \underline{1} \quad \underline{3}$$

**Lesson 14.**

chickens	quarts	1 ox
another	apart	5 oxen

1. There were 6 chickens in one coop and  $\frac{1}{2}$  as many in another; how many in all? (Picture.)
2. How many quarts of milk will fill a 6-quart pail and a 5-quart can?
3. If you go 3 miles east of the school and I go 8 miles west, how far apart will we be? (Picture.)
4. How old were you three years ago? How old will you be in 3 years more?
5. If one ox has two horns, how many horns have five oxen?
6. Will bought 3 pencils at 2 cents each and some candy for 5 cents. What was the cost of all?
7. Ella found 11 roses on her bush, and picked 3; how many are left on the bush?
8. How many apples can you buy for 6 cents, if you can buy one apple for two cents?
9. How many apples at 2 cents each can you buy for 10 cents?

10.  $\frac{1}{2}$  of 10                     $3 \times 2$                      $5 + 4 - 3$  (Problem)
11.  $\frac{1}{4}$  of 8                     $11 - 6$  (Problem)             $6 + 5 - 7$
12.  $\frac{1}{3}$  of 9 (Problem)     $4 \times 2$  (Problem)             $7 - 7 + 6$
13.  $\frac{1}{4}$  of 4                     $11 - 1$                      $3 + 3 + 3$  (Problem)

**Lesson 15.**

tooth	foot	triangle	1 dozen
teeth	feet	square	8 dozen

1. One tooth and 11 teeth are how many teeth ?
2. A dime and a two-cent piece make how much ?
3. Six two-cent pieces are how much money ?
4. How many cents in four three-cent pieces ?
5. How many 2-cent stamps can you buy for 12 cents ?
6. In 12 pencils how many dozen ?
7. Find the cost of 4 oranges at 3 cents apiece.
8. If one hat costs \$6, what will 2 hats cost ?
9. Mary has 2 cents, Lillie has 6 times as much ; how much has Lillie ?
10. A pint of milk costs 2 cents ; how many pints will 12 cents buy ?
11. 4 triangles have how many angles ? (Picture.)
12. Four men and 8 men are how many ?
13. Twelve eggs less 7 eggs are how many eggs ?
14. Three times four balls are how many balls ?
15. Three squares have how many sides ? (Picture.)
16. Twelve feet less one foot are how many feet ?
17. If there are 12 plants in four rows, how many in each row ? (Picture.)
18. Fred had 12 marbles. He gave 3 to Henry and 2 to Tom. How many had Fred left ?
19. Six boys will wear how many shoes ?

**Lesson 16.**

lady	equal	goose	1 sheep
ladies	wear	geese	2 sheep

1.  $12 + 6$        $3 \times 4$        $12 - 11$        $7 + 5$
2.  $2 \times 6$  <sup>(Prob-lem)</sup>       $12 + 3$        $10 + 2$  <sup>(Problem)</sup>       $12 - 7$
3.  $12 \div 2$        $4 \times 3$        $12 - 10$        $5 + 7$
4.  $12 + 1$        $\frac{1}{2}$  of 12 <sup>(Prob-lem)</sup>       $12 - 2$        $12 - 5$
5.  $1 \times 12$        $\frac{1}{3}$  of 12       $3 + 9$        $6 + 6$
6.  $12 + 12$        $\frac{1}{4}$  of 12       $12 - 3$  <sup>(Problem)</sup>       $12 - 6$
7.  $12 \div 4$  <sup>(Prob-lem)</sup>       $11 + 1$        $8 + 4$        $9 + 3$
8. What four equal numbers make twelve ?
9. What three equal numbers make twelve ?
10. Add six equal numbers to make twelve.
11. Add two equal numbers to make twelve.
12.  $3 \times 3 + ? = 12$        $2 \times 3 + ? = 12$        $3 + 3 + ? = 12$
13.  $2 \times 5 + ? = 12$        $4 \times 2 + ? = 12$        $8 + ? + 1 = 12$
14. A lady wears two gloves ; how many gloves do six ladies wear ?
15. How many feet have two sheep and two geese ? One goose and 2 sheep ? One sheep and three geese ?
16. Find the cost of 2 carts at \$6 each.
17. Tom is 4 years old, Fred is 3 times as old. How old is Fred ?
18. Mary had 4 dolls and Jane had 3 times as many. How many dolls had Jane ?

## Lesson 17.

twelve  
apiece

bought  
straight

dozen  
equal

1. At 3 cents a pint what will 4 pints of milk cost ?
2. Two chairs cost \$12; what are they apiece ?
3. If a pound of nuts cost 12 cents, what will  $\frac{1}{2}$  pound cost ?
4. If you have \$12 and give \$10 for a coat, how much have you left ?
5. Charlie had 12 cents. He bought a ball for 5 cents and a tablet for 7 cents. How much was left ?
6. How much more than a dime are 12 cents ?
7. Ray had 4 marbles, Artie three times as many. How many had Artie ?
8. Draw five straight lines and cut each line into 3 equal parts. How many parts ?
9. 12 birds are in a cage, 3 are white, 5 are red, and the rest brown; how many are brown ? How many are not brown ?
10. How many are  $\frac{1}{2}$  dozen eggs ?  $\frac{1}{4}$  dozen ?  $\frac{1}{3}$  dozen ?
11. If eggs are 12 cents a dozen, what will  $\frac{1}{2}$  dozen cost ?
12.  $8 + 3 + 1$
13.  $3 + 4 + 5$
14.  $7 + 3 + 2$
15.  $6 + 3 + 3$
- $12 - 3 - 4$
- $11 - 5 - 2$
- $10 - 3 - 6$
- $9 - 3 - 2$
- $(\text{Prob-lem})$
- $5 \times 2 + 2$
- $12 \times 1 - 9$
- $(\text{Prob-lem})$

**Lesson 18.**

fly	berries	picked	upper
flies	quarts	stole	lower

1. There are 4 nests with 3 eggs in each nest.  
How many eggs in all ?
2. How many feet have two pigs ?
3. A fly has two wings ; how many wings have five flies ?
4. Willie had 12 cents ; he gave  $\frac{1}{2}$  of it to a blind man. How much has he left ?
5. Jane, Ann, and Ned each picked 4 quarts of berries. How many quarts did all pick ?
6. What will 3 oranges cost at 4 cents apiece ?
7. 12 eggs in a nest. A rat stole 4 ; how many eggs were left in the nest ?
8. One dozen less five are how many ?
9. Baby has 7 upper teeth and 5 lower teeth ; how many teeth has the baby ?
10. Add —

$$\begin{array}{r}
 3 \quad (11) \quad 7 \quad (12) \quad 4 \quad (13) \quad 2 \quad (14) \quad 7 \quad (15) \quad 5 \quad (16) \quad 3 \quad (17) \quad 9 \\
 3 \qquad 2 \qquad 4 \qquad 2 \qquad 3 \qquad 4 \qquad 1 \qquad 2 \\
 6 \qquad 3 \qquad 4 \qquad 5 \qquad 2 \qquad 3 \qquad 8 \qquad 1 \\
 \hline
 \end{array}$$

18.  $\frac{1}{2}$  of 12                       $\frac{1}{2}$  of 10                       $\frac{1}{2}$  of 6 - 1
19.  $\frac{1}{2}$  of 12                       $\frac{1}{2}$  of 9 (Problem)               $\frac{1}{2}$  of 8 - 3
20.  $\frac{1}{2}$  of 12 (Problem)               $\frac{1}{2}$  of 6                       $\frac{1}{2}$  of 4 - 2
21.  $\frac{1}{2}$  of 12                       $\frac{1}{2}$  of 8                       $\frac{1}{2}$  of 4 - 0

**Lesson 19.**

nickels	one pair	half	panes
thumbs	three pair	window	flower

1. 12 is three times what number ?
2. May had a dime and 2 nickels. She spent  $\frac{1}{2}$  of her money. How much did she spend ?
3. How many pair of shoes must I put with 6 shoes to make 12 shoes ?
4. Three pair of gloves have how many thumbs ?
5. Find the cost of  $\frac{1}{2}$  of 12 lemons at 2 cents each.
6. How many feet around a flower-bed 2 feet wide and 4 feet long ? How many feet half way round it ? (Picture.)
7. Make a picture of a window with 12 panes of glass and 3 panes in a row. How many rows ?
8. Twelve cents will pay for how many marbles at 2 cents apiece ?
9. There are 12 sheep in a yard and a dog bit all but 7 of them ; how many did he bite ?
10. There were 12 oranges on the table. Bertha took  $\frac{1}{3}$  of them and Lillie took 5. How many were left ?
11.  $3 \times 4$  (Problem)       $6 + 5$        $11 - 4$
12.  $5 \times 2$                    $6 \times 2$  (Problem)       $12 \div 2$
13.  $8 + 5$  (Problem)       $12 - 4$  (Problem)       $10 \div 5$
14.  $7 + 5$                    $11 - 9$                    $12 \div 6$  (Problem)
15.  $6 + 6$                    $10 - 6$  (Problem)       $8 \div 8$

**Lesson 20.**

twelve  
squares

thirteen  
straight

lady  
ladies

1. Make two squares and put 12 dots in one and 1 dot in the other. How many dots in both ?
2. Twelve and one are how many ?
3. Ten men and three men are how many men ?
4. How many boys are 8 boys and five boys ?
5. Thirteen eggs less 6 eggs are how many eggs ?
6. Make thirteen straight marks. Cut off 3 marks. How many marks are left ?
7. How much money in a dime and a three-cent piece ?
8. What three pieces of money will make thirteen cents ? Four pieces ?
9. A hat cost \$2, a coat \$8, and a pair of shoes \$3. What was the cost of all ?
10. In a yard are 4 black horses, 3 bay ones, and 6 white ones. How many horses ?
11. There are thirteen birds on a limb and five fly away ; how many are left ?
12. There are 13 roses on a bush ; I picked 8. How many are left ?
13. I have 7 cents ; how many more must I get to have 13 cents ?
14. One lady, six ladies, and five ladies are how many ladies ?

**Lesson 21.**

chickens  
caught

city  
cities

yellow  
half

1. Willie had 11 chickens and a cat caught 2 of them. How many had he left?
2. Lucy had 10 roses; her aunt gave her 3 more. How many roses in all?
3. On one pear tree are 7 ripe pears; on another
6. How many pears on both trees? (Picture.)
4. I paid 5 cents for a pencil, and 8 cents for a slate. How many cents did I spend?
5. Lucy has 4 cents, Maud has 6 cents, and I have 3 cents. How many cents have we in all?
6. Two cities are twelve miles apart. Ned lives half way between them. How far from each does he live? (Picture.)
7. There are nine yellow apples in one basket, and 4 red apples in another basket. How many apples in both?

$$\begin{array}{r} \text{8. Add } 8 \quad 7 \quad 9 \quad 10 \quad 5 \quad 6 \quad 9 \quad 2 \quad 4 \\ \hline 5 \quad 6 \quad 4 \quad 3 \quad 8 \quad 4 \quad 3 \quad 7 \quad 5 \end{array}$$

9.  $13 + 13$
10.  $13 + 1$ .
11.  $13 - 12$
12.  $11 + 2$  (Problem)
- $13 - 5$
- $13 - 2$  (Problem)
- $\frac{1}{2}$  of 10
- $10 + 3$
- $13 - 6 + 3$  (Problem)
- $11 + 2 - 7$
- $3 \times 3 + 4$
- $5 + 5 + 3$  (Problem)
- $13 - 6 + 3$  (Problem)

**Lesson 22.**

1. Write in two ways thirteen, twelve, eleven, ten.
2. Add 3, 2, 1, 4, 3. Add 7, 1, 3, 2. Add 3, 3, 3, 3, 1.
3. Add any three numbers to get thirteen.
4. Add any four numbers to make thirteen.
5.  $8 + ? = 13$        $3 \times ? + 4 = 13$        $3 \times 4$  (Problem)
6.  $7 + ? = 13$        $4 \times 3 + ? = 13$        $8 - 3$  (Problem)
7.  $9 + ? = 13$        $? + ? + 6 = 13$        $6 + 6$  (Problem)
8.  $6 + ? = 13$        $12 \div 4 + ? = 13$        $7 + 6$
9.  $X. = ?$        $XX. = ?$        $XXV. = ?$        $XXX. = ?$
10. Will earned a dime on Monday and a 3-cent piece on Wednesday. How much money did he earn? \*
11. There were 13 apples in a dish and Nellie took 6 of them. How many were left?
12. John lives 13 miles north of the city, and James 5 miles. How far does John live from James? (Picture.)
13. A farmer had 13 sheep and sold 8 of them. How many has he left?
14. There were 13 dolls in a shop window. How many were left if 4 dolls were sold?
15. Annie is 11 years old. How old will she be in three years?
16. I spent \$4 for a chair, \$6 for a table, and \$3 for a lamp. How much money did I spend?
17. How many thumbs have 6 boys?

**Lesson 23.**

children

miles

earns

boxes

dozen

mouths

1. Each of four children has 3 boxes. How many boxes have all ?
2. There are 3 rows of pins with four pins in a row. How many pins ? (Picture.)
3. A boy had 13 cents ; he spent all but 3 cents. How much did he spend ?
4. A boy had 13 miles to walk. After he had walked 5 miles, he sat down to rest. How many more miles must he walk ?
5. If a boy earns 3 cents a day, how long will it take him to earn 12 cents ?
6. How many eggs in  $\frac{1}{2}$  dozen ?
7. Lucy paid 12 cents for 6 pencils. How much did she pay for one pencil ?
8. How many months in  $\frac{1}{2}$  year ?
9. There are 3 boats on the lake, and 4 boys in each boat. How many boys on the lake ?
10. Rose had 12 apples. She ate  $\frac{1}{3}$  of them. How many apples did she eat ?
11. Add —

3	(12)	1	(13)	2	(14)	3	(15)	5	(16)	4	(17)	3	(18)	6
4		3		2		3		2		3		4		1
2		5		2		3		2		2		2		5
4		4		7		4		2		4		1		1

**Lesson 24.**

clover	angles	leaves	knife
squares	triangles	blades	knives

1. Frank gave 4 marbles to each of 3 boys. How many did he give to all ?
2. Ada spent a nickel for a pencil and 8 cents for a slate. How many cents did she spend ?
3. There are 13 cakes and 6 boys. How many cakes for each boy and how many are left ?
4. Count to ten by twos ; by fives.
5. Count to twelve by fours ; by threes ; by twos.
6. How many angles in 1 triangle and 2 squares ?

(Picture.)

7. Write in two ways four, six, nine, eleven.
  8. How many twos in 8 ? in 10 ? in 12 ?
  9. How many threes in 6 ? in 9 ? in 12 ?
  10. There are three leaves on a stem of clover. How many leaves on 3 stems ? (Picture.)
  11. If one knife has 4 blades, how many blades have 3 knives ? (Picture.)
  12. Bought a book for \$10 ; sold it so as to gain \$3. What did I sell it for ?
  13.  $10 - 6$  (Problem)       $5 + 5 + 3$  (Problem)       $\frac{1}{2}$  of 6
  14.  $3 \times 4$  (Problem)       $6 + 3 + 1$        $\frac{1}{4}$  of 8
  15.  $7 + 6$  (Problem)       $7 + 4 + 3$  (Problem)       $\frac{1}{3}$  of 10
  16.  $12 + 2$  (Problem)       $4 + 4 + 4$        $\frac{1}{2}$  of 12
- X., IX., V., XII., XIII., XX., XXV., XXX.

**Lesson 25.**

fourteen

mouse

mice

wear

1. Thirteen and one more are how many ?
2. Seven men and six men are how many men ?
3. Seven eggs and seven eggs are how many eggs ?
4. Two sevens are how many ?
5. Fourteen less seven are how many ?
6. A dime and two 2-cent pieces are how many cents ?
7. What four pieces of money make 14 cents ?
8. Make two squares ; put 5 dots in one of them and enough more in the other to make 14.
9. How many days in two weeks ?
10. How many eggs in a dozen and two more ?
11. Two inches more than a foot are how many inches ?
12. How many feet have two mice and a bird ?
13. How many feet have 4 birds and a mouse ?
14. A ball costs 5 cents, an apple 2 cents, and a slate 7 cents. What do all cost ?
15. In our class eight boys wear caps and six wear hats. How many boys in the class ?
16. In this class 4 girls wear blue, seven wear pink, and three wear green. How many girls in the class ?
17. A card is 5 inches long and 2 inches wide. How many inches around it ? How many inches half way around it ? (Picture.)

**Lesson 26.**

shoes  
peach

children  
fourteen

money  
thirteen

1. 7 boys can wear how many shoes ?
2. How many 2-cent pieces in 14 cents ?
3. If one dress costs \$7, what will 2 dresses cost ?
4. In 14 days how many weeks ?
5. From 14 cents take 9 cents. How many cents are left ?
6. If you can buy 1 peach for 2 cents, what will 7 peaches cost ?
7. Mary has 4 three-cent pieces and a 2-cent piece. How much money has she ?
8. There were 14 children in a class ; 9 were girls. How many were boys ?
9. If it takes 7 yards of cloth for one dress, how many dresses can be made from 14 yards ?
10. Mrs. Smith had \$14 and spent \$8 for a dress. How many dollars are left ?

11. Add 7    6    5    4    6    4    6    5    7    6    7  
 $\underline{7}$      $\underline{8}$      $\underline{9}$      $\underline{10}$      $\underline{5}$      $\underline{7}$      $\underline{6}$      $\underline{8}$      $\underline{6}$      $\underline{4}$      $\underline{2}$

12. 14    12    13    9    14    14    14    14    13    12  
 $\underline{-9}$      $\underline{-5}$      $\underline{-6}$      $\underline{-4}$      $\underline{-3}$      $\underline{-7}$      $\underline{-4}$      $\underline{-5}$      $\underline{-9}$      $\underline{-7}$

13.  $14 + 1$      $13 + 1$      $10 + 4$      $8 + 6$

14.  $1 \times 14$      $14 - 13$ <sup>(Prob-lem)</sup>     $14 - 10$      $7 \times 2$ <sup>(Prob-lem)</sup>

15.  $14 + 14$      $12 + 2$      $9 + 5$      $6 \times 2$

**Lesson 27.**

20 — twenty

22 — twenty-two

21 — twenty-one

23 — twenty-three

1. I spent 10 cents and James spent 4 cents. Both spent how many cents ?
2. One ball costs 2 cents. How many balls can I buy for 14 cents ?
3. Seven two-cent oranges will cost how much ?
4. How many books at \$2 each can be bought for \$14 ?
5. John is 14 years old ; Mary is  $\frac{1}{2}$  as old. How old is Mary ?
6. Ella saw 9 birds on a tree, and Lucy saw 5. Both saw how many birds ?
7. Mr. A. spent \$2 every day for a week. How many dollars did he spend ?
8. A man paid \$9 for a cord of wood and \$5 for a ton of coal. How much did he pay for both ?
9. Write twenty in two ways.
10. Write twenty-one in letters.
11. XXII. = ?    XXIII. = ?
12.  $6 + ? = 14$     XIV. — 6     $3 \times 4 + 2$
13.  $14 + ? = 2$     XII. — V.     $12 - 6 + 8$
14.  $12 - ? = 9$      $\frac{1}{2}$  of 12 (Problem)     $14 - 10 + 3$
15.  $8 + ? = 14$      $\frac{1}{2}$  of 10 (Problem)     $3 \times 2 - 6$
16.  $3 \times ? = 12$      $14 - 6$      $8 \times 1 - 6$
17.  $12 \div ? = 4$      $9 + 5$      $4 + 4 - 3$

**Lesson 28.**

bought  
cost

table  
year

month  
farmer

1. Mary bought one pencil for 5 cents and another for 10 cents. What did both cost?
2. A lady bought a table for \$15 and sold it for \$10. How much did she lose?
3. How many months are 1 year and 3 months?
4. Three tables cost \$15. What is the cost of one table?
5. Mary spent 6 cents for candy, 8 cents for oranges, and 1 cent for gum. What did she spend?
6. A farmer bought a cow for \$15. He paid one 10-dollar bill and one 2-dollar bill. How much did he still owe?
7. If 1 lemon costs 3 cents, what will 5 lemons cost?
8. How many yards of cloth at 5 cents a yard can be bought for 15 cents?
9. Add 

7	6	4	7	5	4	6	7	5	6
8	9	11	6	9	7	6	7	8	3
10.  $15 + 1$        $15 + 5$  (Problem)       $15 - 12$  (Problem)
11.  $1 \times 15$        $\frac{1}{2}$  of 15       $15 - 4$
12.  $15 + 15$        $\frac{1}{2}$  of 15 (Problem)       $9 + 6$  (Problem)
13.  $15 \times 1$        $13 + 2$        $15 - 9$
14.  $3 \times 5$  (Problem)       $3 + 13$        $15 - 15$

## Lesson 29.

a piece

bought

north

south

geese

turkeys

1. John gave 14 cents for some tops at 7 cents apiece. How many tops did he buy?
  2. Ned bought 7 papers at 2 cents apiece. What did they cost him?
  3. At 2 cents each, how much will 7 pencils cost?
  4. John and Henry start from the same place; Henry runs 4 miles north, John 10 miles south. How far apart are they? (Picture.)
  5. If you are eight years old, how many years before you will be fourteen?
  6. I bought geese for \$3, chickens for \$5, and turkeys for \$6. What was my bill?
  7. How many 2-cent oranges can I buy for 14 cents?
  8. If one box of candy costs 7 cents, how much will 2 boxes cost?
  9. Carrie had 14 roses and gave away 6 of them. How many has she left?

10. Add —

3	(11)	4	(12)	2	(13)	5	(14)	6	(15)	4	(16)	3	(17)	1
3		2		3		1		1		0		5		4
3		3		2		2		1		5		3		1
2		4		3		3		5		2		1		5
2		4		2		3		1		2		2		3

**Lesson 30.**

cakes  
lemon

table  
picked

brother  
mother

1. Helen had 14 nuts ; she ate 7 ; her aunt gave her 4 more. How many had she then ?
2. If 1 lemon costs 2 cents, what will 7 lemons cost ? 6 lemons ?
3. How many legs have 3 tables ? (Picture.)
4. Walter had 12 cents ; he spent  $\frac{1}{3}$  of it for candy. How much did he spend ? How much did he have left ?
5. 12 cents will buy how many 2-cent stamps ?
6. How many pencils at 4 cents each can be bought for 12 cents ?
7. Nellie had 6 cents and Mary had 8 cents ; how many had both ?
8. Jennie had 14 cakes. She gave 3 to each of her 3 brothers ; the rest to her mother. How many did she give to her mother ?
9. Rose picked 12 roses. She gave  $\frac{1}{2}$  of them to Maud. How many had Maud ? How many did Rose have left ?
10. Add —

4	(11) 3	(12) 2	(13) 1	(14) 7	(15) 2	(16) 3	(17) 5
4	3	2	3	1	2	3	1
4	3	2	5	3	4	4	6
2	4	8	4	2	4	3	1

**Lesson 31.**

fifteen	nickel	1 pair	stars
money	half	5 pair	sister

1. What three pieces of money make 15 cents ?
  2. How many 3-cent pieces in 15 cents ?
  3. How many half-dimes in fifteen cents ?
  4. How many cents in a dime and a nickel ?
  5. How many threes in fifteen ?
  6. How many fives in fifteen ?
  7. Make 15 straight marks, and cut off 9 of them ; how many are left ?
  8. Make 3 rows of marks, with 5 marks in each row ; how many marks ?
  9. Make 5 rows of dots, with three in each row ; how many dots ?
  10. Three times five marks are how many marks ?
  11. Five times three dots are how many dots ?
- (Picture.)
12. A foot and how many inches make 15 inches ?
  13. Mary has 15 cents in nickels ; how many nickels has she ?
  14. How many pencils at 3 cents apiece can I buy for 15 cents ?
  15. If one star has 5 points, how many points have 3 stars ? (Picture.)
  16. Mary has a pair of gloves ; her sister has 5 pair. How many gloves have both ?

**Lesson 32.**

fifteen	bought	earned
fourteen	apiece	dollars

1. What must you put with 9 dots to make 15 dots ? (Picture.)
2. I bought a ball for 10 cents and a top for 5 cents. What did they cost ?
3. Bought a table for \$15; sold it for \$13. Did I gain or lose, and how much ?
4. What will 3 books cost at \$5 apiece ?
5. If Nellie earns 3 cents a day, in how many days would she earn 15 cents ?
6. There were 8 boys in one row and 7 boys in the next. How many boys ? (Picture.)
7. I gave 15 cents for a top and 10 cents for a ball. How much more did the top cost than the ball ?
8. John had \$5; he earned two times as much. How many dollars did he earn ? How many dollars has he now ?
9. One top costs 5 cents. How many can I buy for 15 cents ?
10. Four hats cost \$12. What will one hat cost ?
11. 
$$\begin{array}{cccccccccc} 15 & 15 & 15 & 15 & 15 & 15 & 15 & 15 & 15 \\ \underline{-15} & \underline{-14} & \underline{-8} & \underline{-6} & \underline{-7} & \underline{-3} & \underline{-11} & \underline{-4} & \underline{-2} \end{array}$$
12. Count to fifteen by threes.
13. Count to fourteen by 2's.

**Lesson 33.**

dozen

lemons

pansy

money

pages

petals

1. A hat costs \$5 and a dress costs \$10. How much do both cost?
2. Fifteen is how many more than a dozen?
3. A lady had three five-dollar gold pieces. How much money had she?
4. At 3 cents each, how many lemons can I buy for 15 cents?
5. How many pages in 7 leaves of this book?
6. Make 3 rows of squares with 5 squares in each row. How many squares? Cut off  $\frac{1}{2}$  of them, how many are left?
7. If there are 15 apples in a dish and you eat  $\frac{1}{3}$  of them, how many do you eat and how many are left?
8. A bee has twice as many wings as a fly. How many wings has a bee?
9. If there are 3 trees in front of each house on our street, how many in front of 5 houses?
10. A pansy has 5 petals. How many petals have 3 pansies? (Picture.)
11. Ned had 14 cents. He bought 6 peaches at 2 cents apiece. How much had he left?
12. A man earns \$12 in a week. How much does he earn a day?

**Lesson 34.**

fourth	quarts	petals
twice	berries	single

- At \$5 each, what will  $\frac{1}{2}$  dozen tables cost ?
- Maud has 9 dolls and Lucy has half a dozen. They have how many dolls in all ?
- James picked 15 quarts of berries and sold 8 quarts. How many quarts had he left ?
- A boy had 15 apples. He gave away  $\frac{1}{3}$  of them, and then lost 2. How many apples had he left ?
- 8 pints and 7 pints less 9 pints = ?
- How many petals have 3 single roses ?
- If your sister is 5 years old and you are three times as old, how old are you ?
- James had 15 hens, and sold  $\frac{1}{3}$  of them ; how many hens were sold ? How many hens left ?
- If one dozen eggs costs 12 cents, how many eggs can I buy for 15 cents ?
- Five cents, four cents, and six cents are how many cents ?
- $\frac{1}{2}$  of 10 (Problem)       $9 + ? = 3$        $? + 6 = 13$
- $\frac{1}{3}$  of 12 (Problem)       $8 - ? = 5$        $? - 7 = 13$
- $3 \times 4$                    $11 - ? = 4$        $? + 8 = 15$
- $5 \times 3$  (Problem)       $15 - ? = 9$        $? \div 6 = 2$
- $15 \div 5$                    $15 + ? = 3$        $? \times 7 = 14$
- $14 \div 7$                    $4 \times ? = 12$        $? - 3 = 12$
- $10 \div 2$  (Problem)       $7 + ? = 15$        $? \div 2 = 6$

**Lesson 35.**

sixteen	man	feet	1 sheep
lambs	men	shoes	4 sheep

1. Fifteen men and one man are how many ?
2. How many feet have four horses ?
3. How many legs have four chairs ?
4. How many feet have 3 lambs and 2 hens ?
5. Four 3-cent pieces and four cents is how much money ?
6. Four wagons have how many wheels ?
7. What five pieces of money make 16 cents ?
8. How many two-cent pieces in 16 cents ?
9. How many 2's in 16 ?
10. How many fours in 16 ?
11. How many 8's in sixteen ?
12. Four is what part of 16 ?
13. Eight is what part of 16 ?
14. Eight two-cent marbles cost how much money ?
15. What four pieces of money make 16 cents ?
16. What will 8 apples cost at 2 cents each ?
17. Seven roses and nine roses are how many roses ?
18. How many horses need 16 shoes ?
19. 4 sheep have 16 feet ; how many feet has one sheep ?
20. I paid \$4 for a ton of coal, \$7 for wood, and \$5 for a chair ? What did all cost ?

**Lesson 36.**

sixteen children	bought sugar	quarters before
---------------------	-----------------	--------------------

- |  |                                      |                                     |
|--|--------------------------------------|-------------------------------------|
| 1. $16 \div 1$                             | 15 + 1                               | $\frac{1}{2}$ of 16                 |
| 2. $1 \times 16$                           | $16 - 15$ ( <small>Problem</small> ) | $\frac{1}{2}$ of 16                 |
| 3. $16 \div 8$                             | $16 - 1$                             | $\frac{1}{3}$ of 15                 |
| 4. $16 \times 1$                           | $14 + 2$ ( <small>Problem</small> )  | $\frac{1}{3}$ of 15                 |
| 5. $4 \times 4$ ( <small>Problem</small> ) | $16 - 14$                            | $11 + 5$ ( <small>Problem</small> ) |
| 6. $16 \div 4$                             | $2 + 14$                             | $10 + 6$                            |
| 7. $2 \times 8$                            | $13 + 3$ ( <small>Problem</small> )  | $16 - 9$ ( <small>Problem</small> ) |
| 8. $16 \div 2$ ( <small>Problem</small> )  | $13 - 13$                            | $16 - 0$                            |
| 9. $8 \times 2$ ( <small>Problem</small> ) | $12 + 4$                             | $4 + 12$                            |
10. Count to 16 by 2's; by 4's.
11. What four equal numbers in sixteen?
12. Fold a square paper into 16 small squares.  
How many rows? How many squares in each row?
13. Four 4's are how many?
14. There are 16 children in a class; 7 are girls;  
how many boys?
15. Jane bought 10 books. She had 6 before.  
How many has she now?
16. Cut four pies into quarters. How many pieces?  
(Picture.)
17. What will 2 pounds of sugar cost at 8 cents  
a pound?
18. If I give you  $\frac{1}{4}$  of 16 cards, how many will  
you have?

**Lesson 37.**

buttons  
shoe

square  
picked

ice-cream  
quarts

1. Ann has 9 buttons on one shoe and 7 on the other. How many on both?
2. I had 16 apples, I ate  $\frac{1}{2}$  of them. How many did I eat? How many had I left?
3. How many trees must I plant to make a square with 4 trees on each side? (Picture.)
4. Harry picked 4 quarts of berries in one day. How many quarts can he pick in 4 days?
5. Four pears are one-half of how many pears?
6. Fred paid ten cents for some ice-cream, and 6 cents for some cake. How much did he spend in all?
7. Write in two ways sixteen, twenty, thirty-five.
8. Add 3, 5, 4, 3, 1. Add 2, 3, 4, 3, 2, 2.
9. XXII. = ? XXXI. = ? XL. = ? L. = ?
10. Count from 1 to 15 and back, by twos.
11.  $3 \times 4 + ? = 16$        $5 \times 2 + ? = 16$
12.  $5 \times ? + 1 = 16$        $3 \times 3 + ? = 16$
13.  $16 \div ? = 4$        $14 - ? = 8$        $8 + 8 - 6 = ?$
14.  $15 \div ? = 3$        $12 - ? = 4$        $7 + 6 - 5 = ?$
15. Add 9      6      7      9      8      4      3      10      11  

$$\underline{7} \quad \underline{8} \quad \underline{6} \quad \underline{4} \quad \underline{8} \quad \underline{6} \quad \underline{5} \quad \underline{6} \quad \underline{5}$$

**Lesson 38.**

window	pupils	fourth	calf
panes	second	third	calves

1. How many legs have a horse, a cow, a dog, and two hens?
2. Grace had  $\frac{1}{2}$  of 16 cents and Ella had  $\frac{1}{4}$  of 16 cents. How much money had both?
3. May is 6 years older than Tom, who is 10 years old. How old is May?
4. My table is 4 feet square. How many feet around it? (Picture.)
5. A window has 8 panes of glass in each sash. How many panes in the window? (Picture.)
6. In our school 3 pupils sit in the first row, 5 in the second, 4 in the third, and 4 in the fourth. How many pupils in the school?
7. There were 16 doves on a roof; 6 flew away. How many were left?
8. How many calves can I buy for \$12 if one calf costs \$3?
9. Which is more,  $\frac{1}{2}$  of 12 horses or  $\frac{1}{4}$  of 16 horses?
10. John earns \$10 a week and spends \$6. How much does he save in a week?
11. What is the cost of 3 yards of ribbon at 5 cents a yard?
12.  $\frac{1}{2}$  of 16 less  $\frac{1}{4}$  of 12 equals what?

**Lesson 39.**

seventeen

penny

loaf

basket

farmer

loaves

1. There are 7 red apples and 10 green ones in a basket. How many apples in the basket?
2. Frank had 9 balls and bought 8 more. How many has he now?
3. Three five-cent pieces and a two-cent piece are how many cents?
4. If Henry finds 9 eggs in one nest and 8 eggs in another, how many eggs does he find in all? (Picture.)
5. A farmer has 6 cows in one yard and 11 in another. How many in both? (Picture.)
6. In a flock of 17 sheep 6 sheep are black. How many are white?
7. Frank paid 17 cents for a top and sold it for 8 cents. How much did he lose?
8. A lady bought a book for \$17. She paid \$9. How much did she still owe?
9. How many penny pencils can you buy for seventeen cents?
10. What will seventeen tables cost at \$1 each?
11. If one table costs \$7, what will two cost?
12. If 3 loaves of bread cost 15 cents, how much will 1 loaf cost?
13. Eight, five, and four are how many?

**Lesson 40.**

acre	thread	twenty-five
spool	roof	twenty-four

1.  $17 \div 1$        $2 + 15$        $11 + 6$
2.  $1 \times 17$        $17 - 2$  (Problem)       $17 - 11$
3.  $17 \div 17$        $14 + 3$        $6 + 11$
4.  $17 \times 1$        $17 - 14$        $17 - 6$  (Problem)
5.  $16 + 1$  (Problem)       $3 + 14$  (Problem)       $10 + 7$
6.  $17 - 16$        $17 - 3$        $17 - 7$
7.  $1 + 16$        $13 + 4$        $9 + 8$
8.  $17 - 1$        $17 - 13$        $17 - 8$  (Problem)
9.  $15 + 2$  (Problem)       $4 + 13$        $17 - 7$
10.  $17 - 15$        $17 - 4$  (Problem)       $17 - 9$
11. Write in two ways seventeen, twenty-four, and twenty-five.
12. Annie is 10 years old. How old will she be in 7 years?
13. There are 16 plants in a garden in 4 rows. How many in each row? (Picture.)
14. Lucy paid 16 cents for thread at 4 cents a spool. How many spools did she buy?
15. In a shop are 8 men, 3 boys, and 6 girls. How many in the shop?
16. There were 17 doves on the roof and 7 flew away. How many were left on the roof?
17. I bought a book for 7 cents. What must I sell it for to gain 10 cents?

**Lesson 41.**

dozen

goat

sack

buttons

wagon

tablet

1. If you are now 8 years old, how old were you three years ago? How old will you be in nine years?
2. Mary had a ten-cent piece, a five-cent piece, and 2 cents. She bought  $\frac{1}{2}$  dozen lemons at 2 cents each. How many cents did she have left?
3. Katie's sack has three rows of buttons with five in a row. How many buttons? (Picture.)
4. A pencil costs 4 cents, a slate 5 cents, and a tablet 8 cents. What did all cost?
5. I had \$17. I spent \$9 for a chair and \$5 for a book. How many dollars have I left?
6. I paid \$6 for a goat and \$7 for a wagon. I sold them both for \$17. How much did I gain?
7. Helen had 17 buttons. She lost 7 and gave  $\frac{1}{2}$  of what she had left to me. How many did she give away?
8. How many times can you take two from twelve?
9. XXI.= XXVIII.= XXXI.= XXXV.=
10. How many 4's in 12? 5's in 15? 3's in 9?
11. Take  $4 \times 3$  from 17.  $3 \times 4$  from 16.
12.  $3 \times 5 + ? = 17$     $7 + ? = 4$     $8 + 2 + 9 = ?$
13.  $5 + 3 + ? = 17$     $8 + ? = 6$     $3 \times 5 - 6 = ?$
14.  $7 + ? + 5 = 17$     $6 + 11 - ? = 4$     $4 \times 3 + 5 = ?$

**Lesson 42.**

violets	nickels	doves
eighteen	bought	aunt

1. Fred had 12 violets. He picked 6 more. How many had he then?
2. Willie had 8 cents and found a dime. How many cents has he now?
3. If a ball club has 9 boys, how many boys will it take for 2 ball clubs?
4. How many nickels and how many cents make 18 cents?
5. James bought 6 oranges for eighteen cents. What was the cost of one orange?
6. How many wings have 9 doves?
7. A dozen and 6 eggs are how many?
8. Oranges are three cents apiece. What will six oranges cost?
9. Teddy has 6 cents, Edwin has 3 times as many. How many cents has Edwin?
10. How many letters can I send for 18 cents?
11. How many thumbs in 18 gloves?
12. Mabel is 3 years old and her aunt is 6 times as old. How old is her aunt?
13. 9 books cost \$18. What costs 1 book?
14. How many days in 3 school weeks?
15. If a man earns \$4 in one week, how much is that a month?

**Lesson 43.**

eighteen

half-dozen

buttons

1. $18 + 1$	$17 + 1$	$3 \times 6$
2. $1 \times 18$	$18 - 7$ (Problem)	$18 \div 6$ (Problem)
3. $18 \times 1$	$16 + 2$	$18 \div 9$
4. $6 \times 3$ (Problem)	$18 - 16$	$9 + 9$
5. $18 \div 6$	$2 + 16$ (Problem)	$18 - 9$ (Problem)
6. $3 \times 6$	$15 + 3$	$18 - 18$
7. $2 \times 9$	$18 - 3$	$18 - 6$
8. $18 \div 2$ (Problem)	$14 + 4$ (Problem)	$10 + 8$ (Problem)
9. $9 \times 2$	$18 - 4$	$7 + 11$
10. $\frac{1}{2}$ of 18 (Problem)	$13 + 5$	$18 - 7$
11. $\frac{1}{3}$ of 18	$18 - 13$	$5 \times 3$ (Problem)
12. $\frac{1}{6}$ of 18	$5 + 13$	$9 + 8$

13. John has 6 marbles ; Tom has three times as many. How many has Tom ? How many more has Tom than John ?

14. Kate had 3 cents ; May had 6 times as much. How much had May ?

15. What will a half-dozen pencils cost at 3 cents each ?

16. Two nine-cent balls will cost how much ?

17. Spent eighteen cents for apples at 3 cents each. How many apples did I get ?

18. There were 9 buttons on one of Maud's new shoes. How many buttons on both ?

19. How many twos in 18 ?

**Lesson 44.**

fishing  
caught

divide  
basket

shelf  
shelves

1. Two boys went fishing. One caught 7 fish and the other 11. How many did they get in all?
2. A man earned \$18 and spent \$15 for a chair, and the rest for a mat. What did the mat cost?
3. If there are half a dozen pies on one shelf, how many pies on 3 shelves?
4. Among how many girls can I divide 18 cakes, if I give 6 cakes to each girl?
5. I have a dime, a nickel, and a three-cent piece. What is  $\frac{1}{2}$  of it?
6. A man had \$18. He lost \$6 and spent \$3. How many dollars had he left?
7. If I earn \$3 a day, how much will I earn in a week?
8. How many are  $1\frac{1}{2}$  dozen lemons?
9. There were 12 apples in one basket and  $\frac{1}{2}$  as many in another. How many apples in both?
10. Ned has an 18-inch rule; Tom has a rule  $\frac{1}{2}$  as long. How long is Tom's rule? (Picture.)
11. Add 5    6    9    8    6    9    8    7    6    7  
 $\underline{13} \quad \underline{12} \quad \underline{9} \quad \underline{10} \quad \underline{10} \quad \underline{7} \quad \underline{5} \quad \underline{6} \quad \underline{9} \quad \underline{7}$
12.  $18 - ? = 7$                $2 \times ? = 18$                $7 + ? = 18$
13.  $18 - ? = 6$                $6 \times ? = 18$                $11 + ? = 18$

**Lesson 45.**

buttons	lose	questions
apiece	answer	thirty-six

1. If  $1\frac{1}{2}$  dozen buttons are put on a dress in two rows, how many in each row? (Picture.)
2. Six is what part of 18? Nine is what part of 18?
3. What is the cost of 6 oranges at 3 cents apiece?
4. At 6 cents apiece what will  $\frac{1}{2}$  of 9 oranges cost?
5. A boy bought a box for 18 cents and sold it for 15 cents. How much did he lose?
6. There were 5 pears on one branch, 7 on another, and 6 on another. How many pears in all?
7. In a class of 4 boys and 5 girls each one answers 2 questions; how many questions did the teacher ask?
  
8.  $5 + ? = 14$        $? \times 6 = 18$        $\frac{1}{2}$  of 18 = ?
9.  $16 - 8 = ?$        $? - 9 = 6$        $\frac{1}{2}$  of 16 = ?
10.  $14 - 5 = ?$        $12 - ? = 5$        $\frac{1}{2}$  of 18 = ?
11.  $7 + ? = 13$        $17 - ? = 8$       6 is  $\frac{1}{2}$  of ?
12.  $16 + 2 = ?$        $? \div 2 = 8$       4 is  $\frac{1}{2}$  of ?
13.  $14 - ? = 8$        $8 + 5 = ?$       9 is  $\frac{1}{2}$  of ?
14.  $14 - 7 = ?$        $3 \times ? = 12$       5 is  $\frac{1}{2}$  of ?
15.  $18 + ? = 9$        $4 \times ? = 16$       3 is  $\frac{1}{2}$  of ?
16.  $14 + ? = 18$        $? \times ? = 16$       7 is  $\frac{1}{2}$  of ?
17.  $6 + ? = 15$        $11 + ? = 15$        $\frac{1}{2}$  of 15 = ?

**Lesson 46.**

1. May is 10 years old ; John is 9 years older.  
How old is John ?
2. May had 6 cents, Lucy had 8 cents, Ella had 5 cents. How much had they in all ?
3. A pole was 19 feet long ; I cut off 6 ft. at one time and 10 ft. at another time. How many feet were cut off and how many were left ? (Picture.)
4. From XIX. take IX.
5. I spent \$4 for books, \$10 for a case, and had \$5 left. How much had I at first ?
6. 19 children were at school ; 7 of them went home. How many are left ?
7. Jane had 9 roses ; her sister had 4 more. How many must they pick to have 19 roses in all ?
8. I had \$19 ; I spent \$12. How many had I left ?
9. May had a tablet of 19 sheets ; she used 7 of them. How many had she left ?
10. From 19 take 2 sixes.
11.  $18 + 1$        $19 - 3$        $19 + 1$
12.  $19 - 18$        $15 + 4$        $1 \times 19$
13.  $17 + 2$        $19 - 15$  (Problem)       $19 - 12$  (Problem)
14.  $19 - 17$  (Problem)       $19 - 4$        $19 - 7$
15.  $19 - 2$        $13 + 6$  (Problem)       $11 + 8$
16.  $16 + 3$  (Problem)       $19 - 6$        $10 + 9$  (Problem)
17.  $19 - 16$        $6 + 13$        $19 - 19$

**Lesson 47.**

1. Ten men and ten men more are how many ?
2. Count by twos to twenty. By fours; by fives.
3. Seven boys and eight boys and five boys are how many boys ?
4. How many cents in two dimes ?
5. What four equal pieces of money make twenty cents ?
6. What two pieces of money put with a dime will make 20 cents ?
7. How many fingers and toes have you ?
8. How many apples is the sum of 8 apples, 7 apples, and 5 apples ?
9. John had \$20. He spent \$10 for a coat and \$3 for a hat. How much did he spend ? How many dollars had he left ?
10. How many school days in a month ?
11. Tom is 20 years old and Jack is 12. How much younger is Jack than Tom ?
12. At a nickel each, what will 4 sticks of candy cost ?
13. What will  $\frac{1}{2}$  of 20 oranges cost at 2 cents apiece ?
14. What coin is  $\frac{1}{2}$  of 20 cents ?  $\frac{1}{4}$  of 20 cents ?
15. John bought 5 oranges for 20 cents; what did one cost ? What would 3 cost ?
16. If milk is five cents a quart, how many quarts can I buy for 20 cents ?

**Lesson 48.**

1. $20 \div 1$	$19 + 1$	$20 - 16$ (Problem)					
2. $1 \times 20$	$20 - 1$	$15 + 5$ (Problem)					
3. $20 + 20$	$20 - 19$	$20 - 15$					
4. $20 \times 1$	$18 + 2$ (Problem)	$5 + 15$ (Problem)					
5. $2 \times 10$	$20 - 18$	$14 + 6$					
6. $10 \times 2$ (Problem)	$17 + 3$	$20 - 14$					
7. $20 + 10$ (Problem)	$20 - 17$ (Problem)	$\frac{1}{2}$ of 20 (Problem)					
8. $4 \times 5$	$3 + 17$	$\frac{1}{2}$ of 20					
9. $5 \times 4$	$20 - 3$	$\frac{1}{2}$ of 20 (Problem)					
10. $20 \div 5$	$16 + 4$ (Problem)	$\frac{1}{2}$ of 15					
11. Add <u>16</u> <u>18</u> <u>17</u> <u>15</u> <u>8</u> <u>4</u> <u>5</u> <u>2</u>	<u>4</u> <u>2</u> <u>3</u> <u>5</u> <u>12</u> <u>14</u> <u>12</u> <u>13</u>						
12. $5)20$	$4)20$	$2)16$	$9)18$	$3)15$	$4)12$		

13.  $3 \times 5$        $18 \div 6$        $18 - 7$        $9 + 5 + 3$   
 14.  $4 \times 3$        $15 \div 3$        $17 - 6$        $7 + 4 + 2$   
 15.  $7 \times 2$        $14 \div 2$        $15 - 8$        $8 + 9 + 2$   
 16.  $6 \times 3$        $18 \div 2$        $14 - 5$        $6 + 6 + 8$
17. Write in two ways thirty-one, thirty-five, forty-five, fifty, thirty-nine, twenty-eight.  
 18. Read XL., XXV., XXXIX., XLIX., L., XXVI.  
 19. Write in Roman 31, 49, 36, 43, 26, 48, 50.

20.  $2 \times 5 + 8$        $20 - 8 + 4$        $3 \times 4 + 4$   
 21.  $4 \times 3 + 5$        $16 - 5 + 1$        $8 \times 2 + 4$   
 22.  $3 \times 6 - 4$        $17 - 4 + 3$        $3 \times 5 + 5$

**Lesson 49.**

1. Take  $3 \times 4$  from  $2 \times 9$ .
2. If a newspaper comes twice a week, how many will I get in 8 weeks?
3. A boy had 18 apples. He gave away  $\frac{1}{3}$  of them and lost 3. How many had he then?
4. 7 is  $\frac{1}{2}$  of ? 12 is twice what?
5. 4 is  $\frac{1}{3}$  of ? 18 is three times what?
6. A hen had a dozen chickens. Six were black and the rest were white ones. How many white ones?
7. How many thumbs have four pair of mittens?
8. Count to 18 by 3's.
9. A ten-cent piece and a two-cent piece will buy how many marbles at 4 cents each?
10. 13 birds were on a tree; 7 flew away. How many remained?
11. Nellie had 19 apples and gave away 4 of them and ate 1. How many had she left?
12. Write in two ways eighteen, thirty-six, forty-four.
13. How many twos in 20?
14.  $2 \times 8 + ? = 4$        $17 = 3 \times 5 + ?$
15.  $4 \times 2 \times 2 = ?$       XVII. = ?
16.  $\frac{1}{3}$  of 20 =  $5 \times ?$
17.  $7 \times 2 + 3 = ?$

## CHAPTER II.

### Lesson 1.—Sight Work.

[**NOTE.**—See suggestions to teachers.]

1. If a pair of gloves cost \$2, what will be the cost of 10 pair?
2. Sixteen cents will buy how many four-cent pencils?
3. Eddie spent \$10, which was one-half of his money. How much money had he?
4. In how many years will you be 20, if you are 9 years old now?
5. How many corners have 3 squares? (Picture.)
6. How many quarters in 4 pies? (Picture.)
7. How many quarts in 4 gallons?
8. Sing the scale up and down. How many sounds?
9. What piece of money is equal to  $\frac{1}{6}$  of 15 cents? One-sixth of twelve cents?
10. Count to 20 by fours; by fives. Give all the even numbers from one to twenty. The odd numbers. How many fives in 20? Fours in twenty?
11.  $\frac{1}{2}$  of 2, 4, 6, 8, 12, 16, 10, 18, 20.
12.  $\frac{1}{3}$  of 9, 3, 15, 6, 12.  $\frac{1}{4}$  of 8, 12, 16, 4.
13.  $\frac{1}{5}$  of 20, 15, 10, 5.
14. 
$$\begin{array}{r} 3 & 5 & 7 & 8 & 6 & 4 & 3 & 2 \\ \times 4 & \times 3 & + 6 & + 8 & \times 3 & \times 5 & \times 7 & + 16 \\ \hline \end{array}$$

**Lesson 2.—Drill Work.**

1. $\frac{1}{2}$ of 20 = ?	$3 \times 4 = ?$ (Problem)
2. $\frac{1}{3}$ of ? = 3	$7 + 11 = ?$
3. $5 \times 3 + 2$	$\frac{1}{3}$ of 18 = ?
4. $\frac{1}{2}$ of 14 = ?	$\frac{1}{2}$ of 18 = ?
5. $\frac{1}{2}$ of ? = 8	$19 - 7 = ?$ (Problem)
6. $20 - \frac{1}{2}$ of 14 = ?	$20 \div 10 = ?$
7. Add 8    (8) 7    (9) 6    (10) 2    (11) 7    (12) 9	
3                  4                  5                  4                  2                  9	
5                  5                  7                  6                  5                  1	
<u>4</u> <u>2</u> <u>1</u> <u>8</u> <u>6</u> <u>2</u>	

13. From 20 take 11, 4, 6, 12, 9, 8.  
 14.  $\frac{1}{4}$  of 16 = ?     $\frac{1}{3}$  of 18 = ?     $\frac{1}{3}$  of 18 = ?  
 15.  $\frac{1}{2}$  of 12 = ?     $\frac{1}{3}$  of 12 = ?     $\frac{1}{3}$  of 15 = ?  
 16. To 7 add 4, 12, 8, 9, 3, 5.  
 17.  $2)\underline{20}$      $9)\underline{18}$      $2)\underline{16}$      $3)\underline{15}$      $4)\underline{16}$   
 18. Divide 50, 60, 70, 80, 90 — each by 10.  
 19. Write in Roman 15, 20, 30, 45.  
 20. 5 in 15, 20, 10, 5, 0.  
 21.  $20 \div 1$      $19 + 1$      $16 + 4$   
 22.  $1 \times 20$      $20 - 1$      $20 - 16$   
 23.  $20 \div 20$      $1 + 19$      $4 + 16$  (Problem)  
 24.  $20 \times 1$      $20 - 19$      $20 - 4$   
 25.  $2 \times 10$      $18 + 2$  (Problem)     $15 + 5$   
 26.  $20 \div 2$  (Problem)     $20 - 18$      $20 - 15$  (Problem)  
 27.  $20 \div 10$      $20 - 2$      $5 + 15$  (Problem)

**Lesson 3.**

1. I have a house of 20 rooms. I rent half of them to Mr. Fox and one-fourth to Mr. Barnes. How many do I rent? At \$1 a month for each room, how much does Mr. Barnes pay me a year?
2. A person pays \$4 for books, \$2 for paper, and \$1 for pens. How much change from a \$20 bill?
3. How many oranges at 4 ct. each can I get for two dimes?
4. How much less than 19 is 13?
5. If a boy missed 2 words a day, how many did he miss in 2 school-weeks?
6. May went to school every day except three for four weeks; how many days was she in school?
7. What is the cost of 3 lb. of sugar if 2 lb. cost 12 ct.?
8. If 2 lb. of cheese cost 28 ct., what is the cost of 1 lb.?  $\frac{1}{2}$  lb.?
9. What piece of money is equal to  $\frac{1}{2}$  of 20 cents?
10. I sold 4 sheep at \$5 apiece and received \$12. How much more is due me?
11. I can buy 2 apples for a cent. What will 20 apples cost?
12. In a garden are 20 strawberry plants in 5 equal rows. How many plants in each row? (Picture.)
13. Add 3, 6, 7, 4.
14. If you take 3 from 20 and then seven more, what number have you left?

## **Lesson 4.—Sight Work.**

1. Divide 21 marbles among 7 boys.
  2. A boy sold a melon for 21 cents and a bunch of grapes for 9 cents. How much more did he get for the melon than the grapes?
  3. I have 7 three-cent pieces; how much money have I?
  4. If one orange costs 3 cents, what will 7 oranges cost?
  5. John had  $3 \times 7$  cents; how many cents had he?
  6. How many 3-cent pieces in 21 cents?
  7. In three weeks how many school days?
  8. A boy had a nickel. He found a dime, and his mother gave him 6 cents. How many cents had he?
  9. In eight years Ned will be 21 years old. How old is he now?
  10. John had 21 cents; he spent  $\frac{1}{3}$  of it. How much was left?
  11. If 4 pecks make 1 bushel, how many bushels in 16 pecks?
  12. Frank is 7 years old. John is 3 times as old. How old is John?
  13. May has 15 pins; Nell  $\frac{1}{3}$  as many. How many have both?
  14. Add 3 (15) 6 (16) 11 (17) 16 (18) 11 (19) 12  

2	2	4	1	4	5
4	1	3	2	1	4
6	5	2	3	2	0
		<hr/>		<hr/>	

**Lesson 5.—Drill and Sight Work.**

1. What four numbers added together make 21?
2.  $\frac{1}{3}$  of 12 ct. = ?    $\frac{1}{4}$  of \$12 = ?    $\frac{1}{2}$  of 18 = ?
3. Add 3, 8, 4.   Add 9, 7, 3.   Add 2, 3, 7, 9.
4.  $7\frac{)21}{ }$     $6\frac{)18}{ }$     $3\frac{)15}{ }$     $4\frac{)16}{ }$     $3\frac{)21}{ }$     $8\frac{)16}{ }$
5.  $\begin{array}{cccccccc} 8 & 7 & 6 & 2 & 4 & 8 & 7 & 9 \\ \times 2 & \times 3 & \times 3 & \times 9 & \times 4 & + 5 & \times 3 & + 7 \\ \hline -6 & -9 & -2 & -6 & -2 & & \times 3 & + 4 \end{array}$
6.  $\begin{array}{cccccccc} 17 & 18 & 14 & 17 & 15 & 7 & 9 \\ -6 & -9 & -2 & -6 & -2 & & \\ \hline \end{array}$
7.  $\frac{1}{2}$  of 20 = ?    $\frac{1}{3}$  of 15 = ?    $\frac{1}{4}$  of 15 = ?
8.  $\frac{1}{3}$  of 18 = ?    $\frac{1}{4}$  of 20 = ?    $\frac{1}{5}$  of 21 = ?
9. What three equal numbers in 21?
10. What seven equal numbers in 21?
11. Write in figures XXI., XVI., VII., XX., XIV., XXV., XXVII.
12. Count to 21 by threes; by 7's.
13. Two boys each have 4 pair of doves. How many doves in all?
14. When eggs are twenty cents a dozen, what part of twenty cents will a half dozen cost?
15. A ten-cent piece, a 5-cent piece, and a 2-cent piece make how much money?
16. How much are three fours and three 3's?
17.  $8+4+?=21$ .    $5+5+5+?=21$ .    $6+3+?=21$ .  
 $7+7+?=21$ .
18.  $\begin{array}{ccccccc} 40 & 50 & 60 & 50 & 70 & 80 \\ -30 & -20 & -40 & -30 & -50 & -40 \\ \hline \end{array}$

**Lesson 6.**

1. If my car fare is 5 cents each way, what will it cost me to ride to the city and back twice?
2. A man earns \$12 a week. He spends  $\frac{1}{2}$  of it for board and \$2 for his room. How much does he save in 2 weeks?
3. Lucy is 21 years old. Her sister is 6 years younger. How old is her sister?
4. Find the cost of 7 bushels of apples at \$3 a bushel.
5. What is the sum of 9 and 12? The difference between nineteen and six?
6. One-third of 21 = ?
7. 21 divided by 7 = ?
8. Nell had 21 chicks. A dog killed 12 of them. How many chicks remained?
9. Mr. R. had 21 cows. He sold  $\frac{1}{3}$  of them and killed 8. How many were left?
10. How many strokes will a clock strike in 6 hours, commencing at 1 o'clock?
11. A half pound of sugar costs 4 ct. Find the cost of  $3\frac{1}{2}$  lb.
12.  $(6 + 5 + 4 + 6) - (8 \times 2) = ?$
13.  $3 \times 7$  less  $8 \times 2 = ?$
14. There are 20 pencils on the desk. Half are lead and half slate pencils. How many of each kind?
15. If Willie's hens lay 3 eggs a day, how many eggs will they lay in a week?

**Lesson 7.—Sight Work.**

1. Ralph is 22 years old, and his brother is 5 years younger. How old is his brother?
2. Two rabbits and 6 geese have how many feet?
3. Add \$8, \$10, and \$4.
4. How many five-dollar bills in \$22, and how much besides?
5. A dressmaker used 5 spools of white thread, 6 spools of black, 3 spools of brown, and 8 spools of blue. How many spools did she use?
6. Eleven two-cent pieces are how many cents?
7. How many two-cent pencils can I buy with 22 cents?
8. A man who had \$21 gave \$9 for a coat. How much had he left?
9. Frank bought 11 apples. To how many boys could he give  $\frac{1}{2}$  of an apple?
10. If 3 lb. of dates cost 21 ct., what will one pound cost? 5 lb.?
11. A tailor sold a hat for \$7, a vest for \$3, and a coat for as much as both the hat and vest. What did he get for the coat?
12. Add 5   (13) 6   (14) 7   (15) 9   (16) 8   (17) 6  

4	4	6	4	5	6
<u>3</u>	<u>2</u>	<u>5</u>	<u>7</u>	<u>6</u>	<u>6</u>
18.  $3 + 3 + 3 + 3 + 3 + 3 = ?$

**Lesson 8.—Sight Work.**

1. What is the cost of 1 dozen apples at 2 for 1 cent?
2.  $8 + 4 + 6 + 5 = ?$        $4 \times 3 + 8 \div 4 - 2 = ?$
3. How many working days in 3 weeks?
4. George had \$23. He paid \$12 for a coat.

What is left?

5. What number is 7 less than 23?
6. I have 23 cakes and 7 boys. How many cakes can I give each boy? How many are left?
7. How many gloves in 1 dozen pair?
8. How many whole pies are equal to 12 half pies? (Picture.)
9. At 2 for 1 cent, how many pens can you buy for 12 cents?
10. There are 24 hours in a day. How many hours in  $\frac{1}{3}$  of a day?
11. I had 16 ct. I found  $\frac{1}{2}$  as many more. How many cents had I then?
12. Ella had 23 roses. She gave her teacher 4 and her playmates 6. How many had she left?
13. Will bought 9 sticks of candy for 18 ct. What will he pay for 8 sticks?
14.  $3 \times 5$  less  $8 + 2 = ?$
15. 8 twos less 5 threes = ?
16. 22 less ? = 19.
17. Twenty-one  $\div$  ? = seven.
18. What plus 12 = 22?

### **Lesson 9.—Drill Work.**

$$\begin{array}{ccccccccc} 1. & 13 & 14 & 16 & 18 & 19 & 20 & 23 & 23 \\ + 10 & + 9 & + 7 & + 5 & + 4 & + 3 & - 14 & - 16 \end{array}$$

$$2. \quad \begin{array}{ccccccccc} 23 & 23 & 23 & 23 & 18 & 6 & 7 & 8 \\ -10 & -18 & -12 & -9 & -6 & \times 3 & \times 3 & \times 2 \end{array}$$

$$3. \quad 9 + ? = 23 \qquad \qquad 20 + ? = 23$$

$$4. \quad 7 + ? = 23 \qquad \qquad 16 + ? = 23$$

$$5. \quad 6 + ? = 23$$

$$6. \quad 4 + ? = 23 \qquad \qquad 13 + ? = 23$$

7. How many 4's in six times two?

8. To  $4 \times 3$  add  $11 - 2$ .

9. From  $5 \times 3 + 7$  take  $8 \times 2 + 6$ .

10. Find the cost of 15 eggs at 12 ct. a dozen.

11.	Add	3	(12)	7	(13)	8	(14)	5	(15)	2	(16)	6
		6		4		4		6		7		4
		9		5		5		8		5		5
		<u>4</u>		<u>6</u>		<u>6</u>		<u>4</u>		<u>2</u>		<u>2</u>

$$17. \quad \begin{array}{r} 30 \\ - 20 \\ \hline \end{array} \quad \begin{array}{r} 40 \\ - 20 \\ \hline \end{array} \quad \begin{array}{r} 60 \\ - 20 \\ \hline \end{array} \quad \begin{array}{r} 50 \\ - 40 \\ \hline \end{array} \quad \begin{array}{r} 70 \\ - 30 \\ \hline \end{array} \quad \begin{array}{r} 40 \\ - 30 \\ \hline \end{array}$$

18. Write the last five answers in Roman.

19.  $\frac{1}{2}$  of 22 (Problem)     $23 - (3 \times 4) - 1 = ?$

20.  $\frac{1}{4}$  of 20       $23 + (10 \times 0) = ?$

21.  $\frac{1}{6}$  of 18 (Problem)  $18 + (5 \times 1) = ?$

22.  $\frac{1}{3}$  of 21                       $(7 \times 3) + ? = 23$

$$23. \frac{1}{4} \text{ of } 12 \text{ (Problem)} \quad 6 + 9 + 4 + ? = 23$$

**Lesson 10.**

1. Mr. A. lives 10 blocks west of the city hall, and Mr. B. 13 blocks east. How many blocks from Mr. A.'s to Mr. B.'s? (Picture.)
2. There are 19 houses on one side of the street and 23 on the other side. How many more on one side than the other?
3. 23 birds were on a tree; 8 flew away. How many were left?
4. Find the difference between  $18 \times 0$  and  $23 \times 1$ .
5. How many strokes will a clock make in striking 11 and 12.
6. Count from 2 to 20 and back by threes.
7. Lucy is ten years younger than Fred, who is 23 years old. How old is Lucy?
8. James lives 23 rods east of the school-house, and John 17 rods west. How much farther does John live from the school-house than James?
9. Twenty-two figs will cost how much, if two can be bought for a cent?
10. I am 22 years old; May is  $\frac{1}{2}$  as old. How much older am I than May?
11. One day John caught 8 fish. The next day he caught one-half as many, and the third day one-fourth as many. How many did he catch in the three days?
12. I paid 13 cents for paper and 8 cents for pens. What did I pay for both?

**Lesson 11.—Sight Work.**

1. Find the cost of 8 pair of shoes at \$3 a pair.
2. If a man earns \$12 a week, how much can he earn in 2 weeks?
3. How many eggs in 2 dozen?
4. At 24 ct. a doz., what will 3 lemons cost? 4 lemons? 6 lemons? 2 lemons?
5. How many two-quart pitchers will 24 qt. of water fill?
6. How many threes in 2 dozen?
7. What number is  $\frac{1}{2}$  of 24?
8. Find the cost of 6 books at \$4 each.
9. A lady bought a dozen eggs;  $\frac{1}{3}$  of them were bad. How many were good?
10. My square table is 6 ft. on a side; how many feet of fringe will it take to go around it? (Picture.)
11. Bought 6 lemons for 24 cents. What did one lemon cost?
12. Two weeks and 10 days are how many days?
13. How many feet have 3 cats and 3 rats?
14. How many skates in 1 doz. pair?
15. How many mice are two doz. less half a dozen?
16. How many paws have 5 cats?
17. Count from 2 to 22 and back by 4's.
18.  $12 + 3, 5 + 8, 3 + 9, 8 + 7.$
19. Add 2, 3, 4, 5, 3, 2, 1, 3.
20.  $(4 \times 3) - (3 \times 3) = ?$
21. How many hands have 8 girls?

**Lesson 12.—Drill Work.**

1. Write all the even numbers between one and  
 24. Add four odd numbers to make just 24.

2.  $6)\underline{24}$        $8)\underline{24}$        $3)\underline{24}$        $7)\underline{21}$        $6)\underline{18}$

3. $\frac{1}{2}$ of 24 = ?	$5 + 2 + 3 + 5 + ? = 22$
4. $\frac{1}{3}$ of 21 = ?	$6 + 4 + 2 + 3 + 4 = ?$
5. $12 \times 2 = ?$	$8 + 7 + 1 + 3 + 0 = ?$
6. $3 \times 4 \times ? = 24$	$3 + 4 + 1 + 5 + 7 = ?$
7. $\frac{1}{4}$ of 24 = ?	$6 + 6 + 3 + 3 + 3 = ?$
8. $16 + 7 = ?$ (Problem)	$24 - 2 - 2 - 2 - 2 - 2 = ?$
9. $14 + 10 = ?$	$\text{XXIV.} - 18 = ?$

10. Write in figures thirty-five, eighty-seven, sixty-four, fifty-eight, forty.

11. Write them in Roman.

12. $9 + ? = 21$	$? - 15 = 24$
13. $16 + 8 = ?$ (Problem)	$? \times 8 = 24$
14. $3 \times ? = 24$	$? + 16 = 24$
15. $24 \div ? = 6$	$24 - 12 = ?$
16. $18 + 2 - 4 = ?$	$24 - \frac{1}{2}$ of 21 = ?
17. $24 - 17 = ?$ (Problem)	$20 + \frac{1}{3}$ of 12 = ?
18. $2 + 4 + 3 + ? = 14$	$22 - (6 + 4 + 3) = ?$
19. $(9 - 4) \times 4 = ?$	$6 + 6 + 6 + 6 = ?$
20. $21 \div 3 = ?$ (Problem)	$18 \div 9 + 3 \times 2 = ?$
21. $20 - 10 = ?$	$? + 15 = 21$
22. Add 12      16      14      12      19      13	
$\underline{11}$ $\underline{6}$ $\underline{7}$ $\underline{10}$ $\underline{4}$ $\underline{11}'$	

**Lesson 13.**

1. At 2 cents apiece how many pens can you buy for 12 ct.?
2. A man walked 3 miles one day, twice as far the next, and five times as far the third. How many miles did he walk in all?
3. A man has 4 baskets with 6 apples in each. Find the cost at 5 ct. a dozen.
4. If I buy chairs for \$2 apiece and sell them at \$4 apiece, how much will I make on a dozen?
5. Multiply 8 by three. Multiply V. by IV. and write the answer in words and figures.
6. To how many children can I give 3 apples each if I have 24 apples?
7. How many eggs in 2 dozen?
8. If 7 tops cost 21 ct., what will 8 tops cost?
9. 24 ct. will buy how many three-cent pencils?
10. I had a pole 24 feet long. I cut off 6 feet one time and 8 feet another time. How much was cut off? (Picture.)
11. What will 8 pair of boots cost if 5 pair cost \$15?
12. George bought a slate for 8 cents and 4 pencils for two cents each. How much change should he get from a quarter?
13. How many days from the third day of May to the twenty-first day of May?
14. At 6 ct. each how many books can you buy for 24 cents?

**Lesson 14.—Sight Work.**

1. How many hours from 9 o'clock to two o'clock?
2. Name 2 ways in which you could change \$10.
3. Change a quarter into three pieces of money.
4. What piece of money is  $\frac{1}{4}$  of 25 ct.?
5. How many five-cent balls can I buy with 25 cents?
6. If I pay a quarter for five-cent oranges, how many do I buy?
7. 12 quarts are how many pints?
8. Which is more,  $\frac{1}{2}$  or  $\frac{1}{4}$  of an orange?
9. Change a quarter into five equal pieces of money.
10. A man walks 3 miles a day. How many miles will he walk in a week?
11. I have 8 three-cent pieces and a cent. How much money have I?
12. Buy 20 apples at 2 for a cent and give the man 10 cents. How much change back?
13. Add   7      7      6      7      4      7      8      5  

$$\underline{9} \quad \underline{8} \quad \underline{8} \quad \underline{5} \quad \underline{6} \quad \underline{7} \quad \underline{9} \quad \underline{7}$$
14.   2      6      5      8      5      6      7      8  

$$\times 9 \quad \times 4 \quad \times 5 \quad \times 3 \quad \times 4 \quad \times 3 \quad \times 3 \quad \times 2$$
15.  $3 + 3 + 3 + 3 + 3 + 3 + 3 = ?$
16. Add 1, 2, 3, 4, 5, 6, 3. Add 2, 3, 4, 5, 6, 5.

**Lesson 15.—Drill Work.**

1.  $5 \times 5 = ?$  (Problem)  $4 \times 5 + (5 + 5) = ?$
2.  $25 + 5 = ?$  Add 4, 5, 3, 5, 5.
3.  $\frac{1}{2}$  of 25 = ? (Problem)  $6 + 4 + 5 + 6 + 1 = ?$
4.  $16 + ? = 25$   $\frac{1}{2}$  of 15 = ?  $\frac{1}{3}$  of 24 = ?
5.  $25 - 13 = ?$  (Problem) XIX. + VI. = ?  $21 - 6 = ?$
6.  $18 + ? = 25$   $3 \times 8 = ?$   $5 \times 3 = ?$
7.  $5 \times 3 + ? = 25$   $25 \div 5 = ?$   $24 \div 8 = ?$
8. If I have 25 ct. and spend 8 ct. for a tablet and 10 ct. for pencils, how much have I left?
9. Harry bought a knife for 15 ct. and sold it for 25 ct. What did he gain?
10. There are 25 apples in a basket. I take  $\frac{1}{2}$  of them. How many do I take? How many are left?
11. I bought four oranges at 5 ct. each and gave the clerk a quarter of a dollar. What change did I receive?
12. Five cows are in one field, 3 in another, and 17 in a third. How many cows in all?
13. Twenty-one cents are how much less than a quarter?
14.  $6 \times 4$ ,  $8 \times 2$ ,  $4 \times 5$ . 3 sevens, five fives.
15. Take three times six from 5 fives.
16.  $(8 + 8 - 4) \times 2 = ?$   $(4 + 4) \times 2 = ?$
17.  $\frac{1}{2}$  of 24 less  $\frac{1}{3}$  of 21 = ?
18.  $\frac{1}{2}$  of 25 +  $\frac{1}{3}$  of 24 = ?
19. In how many ways can you change a quarter? (Picture.)

**Lesson 16.**

1. If 5 men can do a piece of work in 5 days, in how many days can 1 man do it?
2. Mary had a quarter of a dollar ; she bought 2 books for 10 ct. and 3 dolls for 12 ct. How much change did she receive ?
3. A boy who had 12 ct. earned 13 cents more, and then spent 9 cents. How much had he left ?
4. Twenty-five birds were on a tree ; 7 flew off at one time, 4 another time, and 6 another time. How many were left on the tree ?
5. Out of 25 words Eddie missed 6. How many were right ?
6. If I buy 2 dozen oranges, and give 2 to a poor girl every day, how long will they last ?
7. If you bought 2 lemons at 3 ct. each and 4 oranges at 5 ct. each, what did they all cost you ?
8. To 24 add  $3 \times 3 - 6 - 3$ .
9. Will had 25 ct. and spent  $\frac{1}{5}$  of it. How much has he left ?
10. I bought 19 cents' worth of paper, and gave the man a quarter ; he handed me back 4 pieces of money. What were they ?
11. If in your room there are five rows of seats and five seats in each row, how many seats ? Make a good picture of this, and put a star in the third seat of the 4th row.
12.  $3 \times 3 \times 2 + ? = 25$ .

**Lesson 17.—Sight Work.**

1. How many door-knobs will be required for 13 doors?
2. How many pair of boots in 26 boots?
3. In 13 quarts how many pints?
4. How many five-cent pieces in 26 cents, and how many cents left?
5. John had 26 cents and lost  $\frac{1}{2}$  of it. How much did he lose?
6. How many are  $1\frac{1}{2}$  dozen tops? Count from 3 to 23 and back by 4's.
7. What will 1 dozen lemons cost at 3 ct. apiece?
8. Which will cost more, 4 oranges at 5 ct. apiece or 7 three-cent lemons?
9. A line is 24 inches long. How long is  $\frac{1}{3}$  of the line? (Picture.)
10. If I am in school  $\frac{1}{4}$  of a day, how many hours am I in school?
11. If I send 9 letters, how much must I pay for postage?
12. Take the sum of 6 and 8 from the sum of 9 and 10.
13. Add 3   (14) 2   (15) 7   (16) 4   (17) 5   (18) 6  

2	2	1	4	3	6
5	2	8	4	2	6
4	3	1	4	5	3
3	3	5	4	5	2
<u>6</u>	<u>3</u>	<u>1</u>	<u>4</u>	<u>5</u>	<u>1</u>

**Lesson 18.—Drill Work.**

1.  $4 \times 5$        $20 + 10$        $16 + 7$        $\frac{1}{2}$  of 26  
 2.  $3 \times 7$  (Problem)  $26 + 2$  (Problem)  $8 + 15$        $\frac{1}{2}$  of 24  
 3.  $5 \times 5$        $24 + 12$        $19 - 6$        $\frac{1}{2}$  of 16  
 4.  $6 \times 4$  (Problem)  $21 \div 7$  (Problem)  $25 - 8$        $\frac{1}{2}$  of 25  
 5.  $4 \times ? = 24$        $13 + ? = 25$        $\frac{1}{2}$  of ? = 5  
 6.  $6 \times ? = 18$        $13 - ? = 8$        $\frac{1}{2}$  of ? = 10  
 7.  $20 \div ? = 2$        $24 - ? = 6$       ? of 16 = 4  
 8.  $10 + ? = 18$        $19 - ? = 13$       ? of 21 = 3  
 9.  $12 + ? = 16$        $2 \times ? = 26$       ?  $\times 7 = 21$   
 10.  $8 + 8 + 8 + ? = 26$        $6 + 6 + ? = 26$   
 11.  $3 \times 4 \times 2 = ?$        $4 + 4 + 4 + 4 + ? = 26$   
 12.  $8 + 3 + 4 + ? = 26$        $3 \times 4 - 10 + ? = 26$   
 13.  $9 + 9 + 3 + ? = 26$        $9 \times 2 + 1 - ? = 10$   
 14.  $14 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9 \quad 10 \quad 11 \quad 12 \quad 13$   
 $\underline{- 6} \quad \underline{\times 3} \quad \underline{\times 4} \quad \underline{\times 2} \quad \underline{\times 3} \quad \underline{\times 2} \quad \underline{+ 6} \quad \underline{- 9} \quad \underline{+ 11} \quad \underline{\times 2}$

15. Count to 26 by twos.  
 16. Write twenty-six in Roman.  
 17. Find how many ways to make 20 by adding any two odd numbers.  
 18. Take  $\frac{1}{2}$  of 26 from 19.  
 19. What two equal numbers in 26 ?  
 20. Divide  $\frac{1}{4}$  of XXIV. by  $\frac{1}{2}$  of 6.  
 21.  $12 - 3$  plus  $16 - 4$  minus  $17 = ?$   
 22. Divide  $3 + 6 + 9 + 8$  by  $4 + 3 + 5 + 1$ .  
 23.  $(26 - 18) \times 3 = ?$        $(14 - 7) \times 3 = ?$   
 24.  $4 \times 6 + 2 + (13 - 11) = ?$

**Lesson 19.**

1. Ned had 26 ct. He spent  $\frac{1}{2}$  of it and lost 11 ct. How much was left?
2. If 13 apples cost 26 ct., what will  $\frac{1}{2}$  an apple cost?
3. Write in Roman 87, 78, 94.
4. What will 13 yd. of ribbon cost at 2 cents a yard?
5. How many spools of thread at 4 ct. each can you buy for 26 ct.? How many cents will you have left?
6. There are 26 lb. of butter in a tub. How much was left after  $\frac{1}{2}$  was used?
7. Take  $\frac{1}{2}$  of 26 from 19.
8. What is the cost of 3 lb. of nuts at 8 cents a pound?
9. Mary has 16 cents, Kittie 26 cents, and John  $\frac{1}{2}$  as much as both. How many has John more than Mary, and less than Kittie?
10. A little girl who had 2 dimes spent  $\frac{1}{2}$  of her money for fruit. How much money did she spend, and how much had she left?
11. If lemons cost 5 ct. apiece, how many can Mary buy for 24 ct., and how much change will she get?
12. Two girls walk from the same place. One goes up-street the other down-street. Each walks 13 yards. How far apart are they? (Picture.)

**Lesson 20.—Sight Work.**

1. How many 3-cent pieces in 27 cents ?
2. How many nickels in a quarter ?
3. How many boys in 3 base-ball nines ?
4. Give 3 cents to each of nine children. How much do all get ?
5. How many must I add to 18 to make 27 ?
6. Subtract  $2 \times 8$  from  $3 \times 9$ .
7. In one of my hands are 19 cherries, in the other 8 ; how many in both ?
8. John bought 3 dozen buttons at 9 cents a dozen. How much did they cost ?
9. Charles's mother gave him 20 cents, and his sister gave him enough to make 27 cents. How many cents did his sister give him ?
10. If 9 books cost \$27, what will one book cost ?
11. I bought a table for \$20. For what must I sell it to gain \$7 ?
12. How many 9's in 27 ?
13. Eleven dollars are how many half-dollars ?
14. There are 3 feet in a yard. How many yards in 27 feet ? (Picture.)
15. From 27 cents take 4 cents, then 5 cents, then 8 cents. How many are left ?
16. What 9 equal numbers in 27 ?
17. Add    2              7              5              10              6              3  
               5              6              2              10              6              4  
               7              4              6              7              9              5

**Lesson 21.—Drill Work.**

$$\begin{array}{r} 1. \quad \begin{array}{r} 3 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times 3 \\ \hline -14 \end{array} \quad \begin{array}{r} 27 \\ -16 \\ \hline 11 \end{array} \quad \begin{array}{r} 27 \\ -19 \\ \hline 8 \end{array} \quad \begin{array}{r} 27 \\ -12 \\ \hline 15 \end{array} \quad \begin{array}{r} 26 \\ -18 \\ \hline 8 \end{array} \end{array}$$

$$\begin{array}{r} 2. \text{ Add } 3 \quad (3) \quad 3 \quad (4) \quad 6 \quad (5) \quad 1 \quad (6) \quad 2 \\ 4 \qquad \qquad \qquad 2 \qquad \qquad \qquad 4 \qquad \qquad \qquad 2 \qquad \qquad \qquad 2 \\ 5 \qquad \qquad \qquad 1 \qquad \qquad \qquad 6 \qquad \qquad \qquad 3 \qquad \qquad \qquad 2 \\ 6 \qquad \qquad \qquad 4 \qquad \qquad \qquad 4 \qquad \qquad \qquad 4 \qquad \qquad \qquad 2 \\ 7 \qquad \qquad \qquad 10 \qquad \qquad \qquad 4 \qquad \qquad \qquad 5 \qquad \qquad \qquad 2 \\ \underline{2} \qquad \qquad \qquad \underline{3} \qquad \qquad \qquad \underline{1} \qquad \qquad \qquad \underline{6} \qquad \qquad \qquad \underline{2} \end{array}$$

7. Count to 27 by threes.

$$8. \quad \begin{array}{r} 3) \underline{27} \\ 13) \underline{26} \\ 5) \underline{25} \\ 6) \underline{24} \\ 9) \underline{18} \end{array}$$

$$9. \quad \frac{1}{3} \text{ of } 27 \text{ (Problem)} \quad 27 - 18 \text{ (Problem)} \quad 3 \times 3$$

$$10. \quad \frac{1}{3} \text{ of } 27 \quad 18 + 9 \quad 4 \times 4 \text{ (Problem)}$$

$$11. \quad 27 + 1 \quad 25 - 6 \text{ (Problem)} \quad 5 \times 5$$

$$12. \quad 27 + 27 \quad 16 \div 4 \quad 6 \times 4$$

$$13. \quad 3 \text{ in } 27 \text{ (Problem)} \quad 16 + 9 \quad 7 \times 3 \text{ (Problem)}$$

$$14. \quad \frac{1}{3} \text{ of } 21 \quad 9 \text{ in } 27 \quad 9 + 17 \text{ (Problem)}$$

$$15. \quad \text{Write in words } 49, 56, 73, 84, 66, 93.$$

16. Write fifty, eighty-six, seventy-seven, eighty-eight, forty-six and ninety, in two ways.

$$17. \quad 19 + 2 - 6 = ? \quad 9 + 9 + 9 = ?$$

$$18. \quad \text{From } 5 \times 4 \text{ take } 3 \times 2, \text{ then add } 7.$$

19. Find one-fourth of twenty and take it from eight times two.

$$20. \quad \text{Take } \frac{1}{3} \text{ of } 27 \text{ from } \frac{1}{3} \text{ of } 24.$$

$$21. \quad \text{Add } \frac{1}{2} \text{ of } 12, \frac{1}{2} \text{ of } 16, \frac{1}{2} \text{ of } 20, \text{ and } \frac{1}{2} \text{ of } 18.$$

**Lesson 22.**

1. Jennie had 27 cents, and bought some buttons for 8 cents, a pencil for 4 ct., and some thread for 6 ct. How much has she left?
2. A man paid \$27 for some sheep. If each sheep cost \$9, how many did he buy?
3. If one man can do some work in 27 days, how long will it take 3 men to do it?
4. Susie went to the store and bought seven yards of white ribbon, 11 yd. of blue, and 9 yd. of black. How many yards in all?
5. Ella has 27 ct. How many 5-cent pencils can she buy, and how many cents will be left?
6.  $15 + 12$  less  $3 \times 7 = ?$
7. If you have \$27 and pay  $\frac{1}{3}$  of it for a hat, how much will be left?
8. A man bought a chair for \$27. He paid down \$16. How many dollars does he still owe?
9. I bought a goat for \$12 and a cart for \$10, and sold them both for \$25. How much did I gain?
10. A boy had 25 cents and spent  $\frac{1}{5}$  of it. How much had he left?
11. In one nest there are five eggs, in another two times as many. How many eggs in both nests? (Picture.)

12. Add 20	50	40	20	70	20
	<u>20</u>	<u>30</u>	<u>30</u>	<u>60</u>	<u>30</u>
					<u>40</u>

**Lesson 23.**

1. Twenty-five is how many more than 15?
2. George had 25 cents; he spent 18 ct. and gave away 5 cents. How much has he left?
3. One day Frank saw 6 apples fall from a tree; the next day he saw  $\frac{1}{2}$  as many fall. How many fell?
4. If 8 oranges cost 24 ct., what will 1 orange cost?
5. James is seven years old. John is twice as old. How old is John?
6. Take  $3 \times 5$  from  $3 \times 9$ .
7. How many trees will it take to make a square if there are 5 trees on a side? (Picture.)
8. 12 eggs is what part of 24 eggs?
9. Frank had 27 ct. He spent  $\frac{1}{3}$  of it and lost  $\frac{1}{2}$  of it. How much has he left?
10. I had 24 cookies and ate  $\frac{1}{4}$  of them. How many did I eat?
11. How many apples can I get with 11 cents if 20 apples cost 20 cents?
12. Lucy spent \$9 for a dress, \$6 for shoes, and \$3 for a hat. How many dollars did she spend?
13. James's book has 27 pages. One third of them have pictures. How many have no pictures?
14. What is the cost of one dozen tops at two for four cents?
15. John is 25 years old; Tom is 8 years younger. How old is Tom?

**Lesson 24.—Sight Work.**

1. What number added to itself makes 28?
2. A table has four sides; each side is 7 ft. long.  
How many feet around the table? (Picture.)
3. 7 oranges cost 28 cents. What is the cost of one?
4. What will 4 books cost at 7 cents each?
5. 7 pair of oxen have how many horns?
6. If  $\frac{1}{2}$  of a yard of cloth costs 14 ct., what will a yard cost?
7. If there are 4 trees in a row, how many trees in 7 rows? (Picture.)
8. What three equal numbers make twenty-four?
9. What month has 28 days? When does it have 29 days?
10. If I make \$4 in selling a stove, how many stoves must I sell to make \$28?
11. If your slate is 8 inches long and 6 inches wide, how many inches around it?
12. How many inches in  $\frac{1}{2}$  of the frame? (Picture.)
13. Add 5 (14) 7 (15) 2 (16) 3 (17) 8 (18) 10  

3	6	4	9	4	12
<u>2</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>5</u>	<u>6</u>
19. How many 8's in  $6 \times 4$ ?
20.  $2 \times 3 \times 4 = ?$        $17 - 2 - 2 - 2 = ?$
21.  $5 + 5 + 4 + 4 = ?$        $(14 - 4) \times 2 = ?$

**Lesson 25.—Drill Work.**

- 1. From 28 take 16, 9, 7, 14, 11, 12.
- 2.  $24 + 6$  (Problem)    $17 + ? = 25$     $4 \times 6$  (Problem)
- 3.  $27 + 9$     $20 \div ? = 5$     $8 \times 3$
- 4.  $28 + 7$  (Problem)   9 is  $\frac{1}{2}$  of ?    $7 \times 4$  (Problem)
- 5.  $? - 6 = 23$     $\frac{1}{2}$  of XXVIII. = ?    $5 \times 5$
- 6.  $? + 7 = 4$     $12 \times ? = 24$     $9 \times 3$  (Problem)
- 7. Make four rows of squares with seven squares in each row. How many squares in all?
- 8. Add   5   (9)   7   (10)   6   (11)   1   (12)   2  

6	9	4	7	2
7	4	8	7	2
3	3	5	7	9
<u>4</u>	<u>2</u>	<u>3</u>	<u>6</u>	<u>9</u>
- 13.  $(4 \times 6) - (3 \times 5) = ?$     $(28 - 17) \times (7 - 5) = ?$
- 14.  $(8 + 3 + 11 + ?) \div 6 = 4.$     $8 \times 2 + 4 + 7 = ?$
- 15.  $\frac{1}{2}$  of 28 — 3 = ?    $? - 8 = 12$
- 16.  $\frac{1}{2}$  of 24 — 4 = ?    $? - 6 = 15$
- 17.  $\frac{1}{2}$  of 25 — 5 = ?    $? - 14 = 28$
- 18.  $\frac{1}{2}$  of 18 + 25 = ?    $? - 4 = 9$
- 19.   60        80        70        90        100        50  
 $\underline{- 40}$        $\underline{- 50}$        $\underline{- 30}$        $\underline{- 50}$        $\underline{- 10}$        $\underline{+ 40}$
- 20. XXXIV. = ?   LXVI. = ?   LXXV. = ?
- 21. LXIX. = ?   XLIV. = ?   LVII. = ?
- 22. Write the even numbers to 28 and add the first four of them.

**Lesson 26.**

1. Three times 9 eggs less  $\frac{1}{4}$  of 28 eggs are how many eggs?
2. Will had 4 marbles, John two times as many, and Ned twice as many as John. How many have all?
3. A pole was 28 ft. long. 9 ft. were cut off at one time, 8 ft. at another, 6 ft. at another. How many feet were cut off? How many were left? (Picture.)
4. A lady had \$28; she paid  $\frac{1}{2}$  of it for a table, and  $\frac{1}{4}$  of it for a chair. How much did she spend? How much had she left?
5. Henry found 7 nests with 4 eggs in each. If he left one egg in each nest for a nest egg, how many eggs did he take?
6. If 7 quarts of nuts cost 28 cents, what will one quart cost?
7. A farmer gave 9 barrels of apples at \$2 a barrel and \$5 in cash, for a suit of clothes. What did the clothes cost?
8. At 14 ct. apiece, what will  $\frac{1}{2}$  doz. pineapples cost?
9. In a school-room there are 6 rows of seats and 4 seats in a row. 4 of the seats are empty. How many pupils are in the room? (Picture.)
10. If  $\frac{1}{4}$  of a pie costs 7 cents, what will the whole pie cost? (Picture.)

**Lesson 27.—Sight Work.**

1. How many must be added to a dozen to make 30?
2. A man is 30 years old. How old was he 10 years ago?
3. John stays in school 6 hours each day. How many hours is he in school in a week?
4. How many school-days in 6 weeks?
5. Into what three equal numbers can 30 be divided?
6. A milk-man had five six-quart cans of milk. How much milk had he?
7. How many fives in  $3 \times 10$ ?
8. \$10 is  $\frac{1}{2}$  of how much money?
9. How many two-cent stamps can I buy for 30 cents?
10. What piece of money is  $\frac{1}{3}$  of 30 cents?
11. John has 30 cents, and Mary has  $\frac{1}{2}$  as much. How much has Mary?
12. How many dollars will a man earn in 5 weeks, if he earns \$1 a day?
13. If a man gains \$6 on one cow, how many must he sell to gain \$30?
14. If 6 balls cost 30 ct., what will 7 cost?
15. Thirty cents are how many dimes?
16. A quarter and a nickel are how much money?
17. How many yards in thirty feet?
18. Add 4, 3, 6, 2, 1, 4, 5, 2, 3.

**Lesson 28.—Drill Work.**

1.  $(\frac{1}{2} \text{ of } 24) + (\frac{1}{2} \text{ of } 24) + (\frac{1}{2} \text{ of } 24) = ?$
2.  $(\frac{1}{2} \text{ of } 27) + (\frac{1}{2} \text{ of } 28) = ?$
3.  $(14 \times 2) \div (16 - 9) = ?$
4.  $(\frac{1}{2} \text{ of } 30) + (\frac{1}{2} \text{ of } 30) + (\frac{1}{2} \text{ of } 27) = ?$
5.  $7 \times 4 = 14 \times ? \quad 13 + ? = 6 \times 5$
6.  $7 \times 4 + ? = 5 \times 6 \quad 3 \times 3 \times 3 = ?$
7.  $2 \times 2 \times 2 \times 2 = ? \quad 2 + 2 + 2 + 2 + 2 = ?$
8. Count to 30 by 6's; by 3's; by 2's.
9. Add any five numbers to make thirty; twenty.
10. Write the even numbers between 1 and 30, and add the first five of them.
11. Find how many times you can get 30 by adding any two or more even numbers.
12. Add 6 (13) 3 (14) 16 (15) 8 (16) 11 (17) 13  

4	9	4	9	11	7
7	8	4	7	4	7
<u>3</u>	<u>10</u>	<u>4</u>	<u>6</u>	<u>4</u>	<u>3</u>
18. 

11	12	9	14	30	30	14	8
<u>+ 6</u>	<u>+ 12</u>	<u><math>\times 3</math></u>	<u><math>\times 2</math></u>	<u>- 12</u>	<u>- 16</u>	<u>+ 6</u>	<u>+ 9</u>
19. Make 5 rows of squares with 6 squares in a row. How many squares?
20.  $2 \times 15$  (<sup>Prob-</sup><sub>lem</sub>) 3 in 30      9 and ? are 20
21.  $30 \div 2$       5 in 20      30 less ? are 14
22.  $30 - 15$       7 in 28 (<sup>Prob-</sup><sub>lem</sub>) 15 times what are 30
23.  $6 \times 5$       9 in 27      14 less 3 times 4 = ?
24.  $30 \div 5$  (<sup>Prob-</sup><sub>lem</sub>) 8 in 24 (<sup>Prob-</sup><sub>lem</sub>)  $30 - 6 - 6 - 6 - 6 = ?$

**Lesson 29.**

1. Nellie has 10 roses, and Bessie 20 roses. How many must Bessie give Nellie that both may have the same number ?
2. I paid \$15 for a dress, \$4 for a hat, and \$6 for shoes. How much would I have left out of \$30 ?
3. If you had 2 doz. oranges and gave 8 boys each half an orange, how many are left ?
4. 4 girls and 2 boys had 5 pencils each. How many have they in all ?
5. How many lemons in  $\frac{1}{2}$  of 2 doz. ?
6. If 6 lemons cost 18 ct., what will 1 lemon cost ?
7. How long a strip of cloth will cover the frame of your slate, if it is 10 inches long and 5 inches wide ? (Picture.)
8. In a class of 30 pupils  $\frac{1}{3}$  of the number are boys, and the rest girls ; how many girls in the class ?
9. From  $\frac{1}{2}$  of XXX. take 7, and write the answer in letters, in words, and in figures ?
10. If a dozen eggs cost 20 cents, what will 1 $\frac{1}{2}$  dozen cost ?
11. A flag-pole is 30 ft. high. If  $\frac{1}{3}$  of the length is red,  $\frac{1}{3}$  white, and the rest blue, how much is blue ? (Picture.)
12. Take 3 from 20 to put with 11. What two new numbers do you get ?
13. If a boy comes to school two minutes late each day for two weeks, how much time does he lose ?

**Lesson 30.—Sight Work.**

1. How many fingers have 4 children ?
2. How many sides have 8 squares ? (Picture.)
3. A table has four sides. Each side is 8 ft. long. How many feet around the table? (Picture.)
4. How many ears have 8 teams of horses ?
5. How far around a square 6 ft. on a side ?  
(Picture.)
6. How many pair in 32 mittens ?
7. If 8 pencils cost 32 cents, what will 1 cost ?  
What will 7 cost ?
8. If 8 children have 32 cents, how many cents has each child ?
9. What will 8 pounds of rice cost at 4 cents a pound ?
10. What will  $\frac{1}{4}$  of 24 cakes cost at 4 ct. apiece ?
11. Thirty-two cents will buy how many two-cent postage stamps ?
12. At 2 ct. each, what will a dozen books cost ?
13. Add 3, 5, 8, 7, 4, 3.
14. 
$$\begin{array}{ccccccccc} 12 & 5 & 7 & 8 & 6 & 11 & 16 & 14 & 15 \\ -9 & \times 5 & \times 3 & +4 & +7 & +5 & -9 & -7 & -8 \\ \hline \end{array}$$
15. Add 9, 8, 7, 6, 2.
16. How many 8's in thirty-two ?
17. What part of 32 is 16 ?
18. Make 30 squares in three rows. How many in a row ? How many angles in  $\frac{1}{4}$  of these squares ?

**Lesson 31.**

1.  $2 \times 16$  (Problem)       $\frac{1}{2}$  of 32 (Problem)
2.  $32 + 2$                            $\frac{1}{2}$  of 32
3.  $16 \times 2$                            $\frac{1}{2}$  of 32 (Problem)
4.  $32 - 16$  (Problem)               $3 \times 10$
5.  $4 \times 8$                              $16 + 16$
6.  $32 + 4$  (Problem)                 $17 + 15$  (Problem)
7.  $8 \times 4$                              $32 - 18$
8.  $32 \div 8$                             $32 - 14$  (Problem)
9.  $? \times 8 = 32$                      $3 \times 3 + 6 + ? = 32$
10.  $? \times 16 = 32$                     $(8 + 2 + 6) \times 2 = ?$
11.  $32 - ? = 11$                      $4 \times ? = 8 \times 2$
12.  $32 - 12 = ?$                      $(\frac{1}{2} \text{ of } 32) - (\frac{1}{2} \text{ of } 32) = ?$
13.  $16 + 5 + ? = 32$                $(\frac{1}{2} \text{ of } 24) + (\frac{1}{2} \text{ of } 32) = ?$
14. If I have 2 dozen and 8 oranges and give four to a sick girl every day, how long will they last?
15. I bought 2 books at 5 ct. each, 2 slates at 6 ct. each, and a 10-cent top. How much did I pay for all?
16.  $2\frac{1}{2}$  dozen eggs are packed in a box. How many eggs does the box hold?
17. A boy got 8 ct. a bushel for picking hops; he earned 32 cents in one day. How many bushels did he pick?
18. Mary has 32 apples. She gives  $\frac{1}{2}$  of them to John and  $\frac{1}{4}$  of them to James. How many has she left?
19. Thirty-two is how many times eight?

**Lesson 32.**

1. Fred has 8 marbles, and James 3 times as many. How many have both?
2. How many 7's in twenty-eight?
3. One eighth of thirty-two in one third of twenty-four how many times?
4. If I pack 8 lb. of candy into boxes that hold a quarter of a pound each, how many boxes will I need?
5. A newsboy pays 3 ct. each for papers, and sells them for 5 ct. each. What will he make on 16 papers?
6. Harry had 32 marbles. He gave 16 marbles to James. What part of his marbles did he give James?
7. What cost  $\frac{1}{8}$  of 32 tablets at 6 ct. each?
8. What is the cost of 8 qt. of milk at 2 ct. a pint?
9. A boy has 20 cents in one pocket, 9 in another, and 3 in a third. How many cents has he in all?
10. A train runs 10 miles the first hour, 9 miles the next, and 11 miles the third hour. How far does it run in the 3 hours?
11. Two brothers and two sisters had a present of thirty-two nuts. How many for each?
12. If six oranges cost 30 cents, what will one orange cost? Four oranges?
13. How many pages in 16 leaves of this book?
14.  $(32 - 22) \div (16 - 11) = ?$

**Lesson 33.**

1. What 3 pieces of money make 33 cents ?
2. If you had a quarter, and found 8 ct., how much had you then ?
3. Find  $\frac{1}{3}$  of 33 and take it away from 33.
4. How many 3-cent pieces in 33 cents ?
5. A man is 33 years old. How old was he 12 years ago ?
6. An orchard has 16 apple-trees, 7 pear-trees, and 10 cherry-trees. How many trees in all ?
7. I bought a picture for \$33, and sold it at a loss of \$8. What did the picture sell for ?
8. Divide 11 apples into thirds. How many ?
9. John had 33 peaches and gave away 9. How many had he left ?
10. What is the cost of 4 pounds of sugar at 7 ct. a pound ?
11. A teacher divided a class of 33 into 3 equal parts. Two parts were boys and 1 part girls. How many girls in the class ? (Picture.)
12. What is the cost of ten peaches, if two peaches cost six cents ?
13. In a box are 12 mice. If you take  $\frac{1}{3}$  of them away, how many will be left ?
14. There are 28 seats in a school-room. If there are 4 rows, how many seats in a row ?
15. If you take a stick thirty inches long, and cut off 14 inches, how many inches are left ?

**Lesson 34.**

1. If you have 2 dimes, a nickel, and 9 cents, how much money have you?
2. If Fred has 8 three-cent pieces and earns a dime, how much has he then?
3. Find  $\frac{1}{2}$  of 34 and take it from 30.
4. I had \$34. I spent \$6 for a hat, \$5 for gloves, \$8 for shoes, and \$10 for a dress. How many dollars have I now?
5. If I had 34 ct. and spent  $\frac{1}{2}$  of it, how much did I spend? How much had I left?
6. Will had 12 ct., Fred 9, Tom 13; how much had all?
7. Find the cost of 4 lb. sugar at 8 cents a pound.
8. A spider has 8 legs, and a fly has 6 legs. How many legs have 2 spiders and 3 flies?
9. If one sheep costs \$2, what will 14 sheep cost?
10.  $2 \times 17$  (Problem)     $\frac{1}{2}$  of 34               $33 + ? = 11$
11.  $34 + 2$  (Problem)     $\frac{1}{2}$  of 28               $33 - 14 = ?$
12.  $17 \times 2$                $24 + ? = 28$      $6 \times 5 + 3 = ?$
13.  $34 - 17$  (Problem)  $(20 + 14) + 2 = ?$      $9 \times 3 - 8 + 4 = ?$
14. Write in Roman 65, 75, 85, 95.
15. Add 5, 7, 6, 4, 6, 5.
16.  $15$                $7$                $8$                $14$                $26$                $15$                $9$   
 $\underline{\times 2}$      $\underline{+ 19}$      $\underline{+ 26}$      $\underline{+ 16}$      $\underline{+ 5}$      $\underline{+ 18}$      $\underline{+ 21}$
17.  $2) \underline{28}.$      $11) \underline{33}$                $2) \underline{26}$                $2) \underline{34}$                $5) \underline{25}$

**Lesson 35.—Sight Work.**

1. How many days will a boy go to school in 7 weeks?
2. What will  $\frac{1}{5}$  of 35 lemons cost at 3 cents each?
3. Fred had 35 cents; he divided it equally among five poor children. What was the share of each?
4. In five weeks how many days?
5. How many times could I give Fanny 7 cents, if I had 35 ct.?
6. If you put 35 sheep into 5 pens, how many must you put into each pen? (Picture.)
7. If one loaf of bread costs 5 ct., how many loaves can be bought for a quarter and a dime?
8. How many 5-cent pieces in 35 cents?
9. How many postal cards can I buy with 35 cents?
10. What part of 35 cents is a nickel?
11. Add 9      6      15      10      15      8  

$$\underline{5} \quad \underline{4} \quad \underline{10} \quad \underline{10} \quad \underline{15} \quad \underline{7}$$
12. 14      17      15      24      15      16  

$$\underline{-9} \quad \underline{-8} \quad \underline{-6} \quad \underline{-12} \quad \underline{-4} \quad \underline{-8}$$
13. Add 7, 2, 3, 6, 4, 10, 2.
14. How many fives in 35, in 25, in 15? 35 is how many times 5? 25 less 25 plus what = 20?

**Lesson 36.—Drill Work.**

1.  $5 \times 7 = ?$  (Problem)  $\frac{1}{2}$  of 35 (Problem)  $7 \times ? = 35$
2.  $35 \div 5 = ?$   $\frac{1}{2}$  of 28  $6 \times ? = 30$
3.  $35 \div 7 = ?$  (Problem)  $\frac{1}{2}$  of 24 (Problem)  $8 + ? = 30$
4.  $35 - 14 = ?$   $\frac{1}{2}$  of 33 (Problem)  $? - 10 = 30$
5.  $35 - 17 = ?$  (Problem)  $\frac{1}{2}$  of 28  $? \times 6 = 30$
6.  $4 + 6 + 9 + 6 + 3 = ?$   $(28 + 7) + (8 \times 3) = ?$
7.  $7 + 4 + 3 + 7 + 2 = ?$   $(25 + 5) \times (35 \div 7) = ?$
8.  $9 + 3 + 6 + 2 + 9 = ?$   $(17 + 4) \div (15 - 8) = ?$
9.  $6 + 8 + 9 + 7 + 5 = ?$   $35 - \frac{1}{2}$  of 28  $= ?$
10.  $2 + 7 + 6 + 4 + 6 = ?$   $7 + 7 + 7 + 7 + 7 = ?$
11. Write in two ways, thirty-five, forty-five, fifty.
12. Make seven rows of squares with five squares in a row. How many squares? How many angles have  $\frac{1}{2}$  of these squares?
13. Take  $16 + 9$  from 32.
14. Divide 24 by 4; 32 by 8.
15. From  $5 \times 4$  take  $3 \times 2$ , and then add 7.
16. Find  $\frac{1}{2}$  of 20, and take it from  $8 \times 2$ .
17.  $(\frac{1}{2} \text{ of } 35) + (\frac{1}{2} \text{ of } 35) + (\frac{1}{2} \text{ of } 27) = ?$
18. Write all the odd numbers between 1 and 35, and see how many twenties you can get by adding any two of them?
19. Take four times five from seven times five.
20.  $7) \underline{35} \quad 9) \underline{18} \quad 11) \underline{33} \quad 7) \underline{28} \quad 3) \underline{15} \quad 7) \underline{21} \quad 9) \underline{27}$
21.  $3 + 6 + 8 + 7 + 3 = ?$
22.  $4 + 3 + 8 + 5 + 3 + 2 = ?$
23.  $2 + 5 + 5 + 5 + 3 + 3 = ?$

**Lesson 37.**

1. 35 cents will buy how many 10-cent knives, and leave how much money?
2. What is the cost of 5 lemons at 2 cents each, and 5 oranges at 5 cents each?
3. If  $\frac{1}{2}$  lb. of cheese cost 7 cents, what will 2 pounds cost?
4. If  $\frac{1}{4}$  dozen oranges cost 9 cents, what is the cost of one dozen?
5. There are 35 apples in a dish;  $\frac{1}{4}$  of them are red; the rest are green. How many green apples in the dish? How many more green ones than red ones?
6. Willie has 5 pears, and Alfred has 7 times as many. How many has Alfred? How many have both?
7. There are 7 trees in one row, twice as many in another, and 14 in another. How many trees in all? (Picture.)
8. A boy paid 28 cents for 7 lemons; how many could be bought for 32 cents?
9. How far will a boy walk in  $2\frac{1}{2}$  days by walking 14 miles a day?
10. Harry had 35 cents. He spent 12 ct. for candy, and 5 ct. for nuts. With the rest he bought tops at two cents each. How many tops did he buy?
11. Take  $\frac{1}{4}$  of 35 from  $\frac{1}{4}$  of 32.
12. ( $\frac{1}{4}$  of 20) times ( $\frac{1}{2}$  of 16) = ?

**Lesson 38.—Sight Work.**

1. How many 8's in 35, and how much over ?
2. In 36 feet how many yards ? (Picture.)
3. How much money have you in 3 dimes, a nickel, and a one-cent piece ?
4. How much more is  $6 \times 6$  than 18 and 7 ?
5. How many boys will it take for 4 ball clubs ?  
(Picture ball ground.)
6. How many months in 3 years ?
7. What costs 9 lemons at 36 cents a dozen ?
8. A man earns \$9 a week; how much does he earn in a month ?
9. How many 4-dollar chairs can be bought for \$36 ?
10. How many eggs in 3 dozen ?
11. Three boys earned 36 cents; how much was that for each one ?
12. What two equal pieces of money make  $\frac{1}{4}$  of 36 cents ?
13. How many oranges in  $\frac{1}{4}$  of 36 oranges ?
14. Strawberries cost 12 cents a box. How many boxes can I get for 36 cents ?
15.  $5 \times 6$  ,  $8 \times 3$  ,  $3 \times 5$  ,  $7 \times 2$  .
16.  $4 \times 7$  ,  $4 \times 9$  ,  $5 \times 4$  ,  $9 \times 3$  .
17.  $6 \times 5$  ,  $6 \times 6$  ,  $7 \times 3$  ,  $8 \times 4$  .
18.  $3 \times 4$  ,  $7 \times 4$  ,  $9 \times 2$  ,  $7 \times 5$  .
19.  $2 \times 9$  ,  $5 \times 5$  ,  $3 \times 6$  ,  $8 \times 2$  .
20.  $10 \times 2$  ,  $9 \times 1$  ,  $3 \times 7$  ,  $5 \times 6$  .

**Lesson 39.**

1.  $3 \times 12 = ?$  (Problem)  $\frac{1}{2}$  of 36 = ?

2.  $3 \times ? = 36$   $\frac{1}{2}$  of 36 = ? (Problem)

3.  $9 \times 4 = ?$  (Problem)  $\frac{1}{4}$  of 36 = ?

4.  $36 \div 4 = ?$   $4 \times ? = 36$

5.  $36 - 12 = ?$  (Problem)  $36 - 18 = ?$  (Problem)

6.  $36 \div 3 = ?$  (Problem)  $6 \times 6 = ?$  (Problem)

7. Make a square just 3 inches long, and cut it into just 36 small squares.

$$8. \begin{array}{ccccccccc} 36 & 36 & 9 & 35 & 18 & 16 & 27 & 26 & 18 \\ -7 & -25 & \times 4 & -17 & +16 & +15 & -8 & +5 & +9 \\ \hline & & & & & & & & \end{array}$$

9. XL., XXXIV., LXVI., XVII., XIX., L.

$$10. \begin{array}{ccccccccc} 75 & 75 & 75 & 75 & 75 & 75 & 75 & 75 \\ -5 & -10 & -15 & -20 & -25 & -30 & -35 & -40 \\ \hline & & & & & & & \end{array}$$

11. If 3 dozen eggs cost 36 cents, what will 1 dozen cost?  $1\frac{1}{2}$  dozen?

12. A boy gathered 3 dozen eggs; he kept one third of them and sold the rest at 1 cent each. What did he get for them?

13. Find the cost of 3 books at 8 cents each, and 1 slate for 12 cents.

14. A man had 36 ducks; he sold  $\frac{1}{2}$  of them, and 5 died. How many were left?

15. James had 3 cents and earned 6 times as much; he spent  $\frac{1}{2}$  of it. How much did he spend?

16. Add 7, 16, 12.

**Lesson 40.**

1. There are 17 boys and 19 girls in a class. If all but 7 of them go home, how many go home?
2. Which are worth the more, 6 chairs at \$5 each, or 2 sofas at \$18 each?
3. A lady has 36 yards of cloth; how many dresses of 9 yards each can she make?
4. Eddie had 3 dozen eggs in a basket. He fell and broke  $\frac{1}{2}$  of them. How much money did he lose, if eggs were selling at 2 cents apiece?
5. At 36 cents a dozen, find the cost of 1 banana. 8 bananas.
6. Mr. R. had \$20 + \$16. He paid  $\frac{1}{4}$  of it for a harness. What did the harness cost?
7. A horse can travel 8 miles an hour, and a man 4 miles an hour. If they start from the same point and go west, how far apart will they be in 3 hours? How far apart if one goes east and the other west? (Picture.)
8. Which is the more,  $\frac{1}{2}$  of 24 or  $\frac{1}{3}$  of 36?
9. If 12 boxes cost 36 cents, what will be the cost of 4 boxes?
10. How many hats at \$3 apiece can I buy for  $\frac{1}{4}$  of \$36?
11. 12 is what part of 36?
12. Add 17    19    14    13    16    32    14  

$$\underline{6} \qquad \underline{8} \qquad \underline{7} \qquad \underline{5} \qquad \underline{9} \qquad \underline{3} \qquad \underline{16}$$

**Lesson 41.**

1. How many lemons, at 2 for 5 cents, can be bought for a quarter ?
2. How many times can a 4-quart basket be filled from 36 quarts of nuts ?
3. What number taken from 37 leaves 24 ?
4. A farmer who has 37 sheep sells 18 of them. How many are left ?
5. There are 37 cakes and 5 boys. How many cakes for each boy, and how many left ?
6. Add  $\$ \frac{1}{4}$ , 1 dime, and 2 nickels.
7. How many feet in 36 inches ?
8. From 40 take  $\frac{1}{4}$  of 36.
9. Annie had 8 cents, and Jennie had 3 times as many plus 5. How many cents had both ?
10. 12 three-cent pieces will buy how many four-cent papers ?
11. If  $\frac{1}{2}$  dozen lemons cost 36 cents, what will one lemon cost ?
12. How many fours in  $\frac{1}{2}$  of 32 ? (Picture.)
13. Take  $\frac{1}{2}$  of 21 from  $12 \times 3$ .
14. A boy bought a top for 18 cents and sold it so as to gain 7 cents; what did he sell it for ?
15. If one knife has 4 blades, how many blades have 9 knives ? (Picture of 1 knife.)
16. A boy bought a dozen papers at three cents each, and sold  $\frac{1}{2}$  of them for four cents apiece, and the rest at three cents apiece. How much did he gain ?

**Lesson 42.**

1. 5 times 6 ; 7 ; 4 ; 2 ; 3 ; 0.
2. 38 divided by 2 = ?
3. 9 plus 7 ; 9 ; 11 ; 16 ; 6.
4. 18 minus 6 ; 8 ; 11 ; 5 ; 3 ; 4.
5. A boy who had 38 cents gave 29 cents to the poor. How many cents has he left?
6. Annie puts 7 cents in her bank every week. How long will it take her to save 35 cents?
7. I had \$37. I spent \$5 and lost  $\frac{1}{2}$  of the rest. How much had I left?
8. James had 25 cents. He lost 17 cents and then earned 30 cents. How much money has he?
9. If apples are selling at 2 for 1 cent, how many apples can I buy for 19 cents?
10. Take 9 and 6 and 7 and 8 from 38.
11. A man had 8 sheep in one field, 3 times as many in another, and 6 in another. How many in all? (Picture.)
12. My table is 8 feet long and 7 feet wide. How many feet on the four sides? (Picture.)
13. If a quarter of a pound of coffee cost 8 cents, what will one pound cost?
14. If a man earn \$12 a week, how much will he earn in  $2\frac{1}{2}$  weeks?
15. Add   40           70           60           50           20           70  
           50        20        30        20        80        10
16.  $7 + 2 + 8 + 3 + 5 + 6 = ?$

**Lesson 43.**

1. My milk bill for a week was 35 cents. How many quarts did I have at 5 cents a quart?
2. What will 3 dolls cost at 13 cents apiece?
3. A farmer buys a cow for \$32, and sells her so as to gain \$7. What does she bring?
4. John had 39 marbles, and Tom has  $\frac{1}{3}$  as many. How many has Tom?
5. What costs 3 five-cent pencils, 2 seven-cent tablets, and a ten-cent book?
6. 15 cakes plus 17 cakes less 21 cakes are how many cakes?
7. Ned had 13 cents, Fred twice as many. How many had both?
8. If Mary reads 9 pages of her book before dinner, and 4 after dinner every day for 3 days, how many pages does she read?
9. Frank earns \$7 a week. He pays \$3 a week for board, and saves the rest. How much will he save in 2 months?
10. There are 30 pounds of butter in a tub. How many pounds were left after  $\frac{1}{2}$  had been used?
11. In a class of thirty-nine boys, one third of them wear hats, and the rest wear caps. How many wear caps?
12. There are 13 sheep in each of three fields. How many in all? (Picture.)
13. Take one third of thirty from  $\frac{1}{2}$  of 36.

**Lesson 44. — Sight Work.**

1. Count from 3 to 39 and back by 6's.
2. Count from 4 to 39 and back by 5's.
3. How many tens in forty?
4. How many dimes make 40 cents?
5. How many 8's in forty?
6. How many  $\frac{1}{2}$  dimes make 40 cents?
7. Forty is how many times four?
8. How many nickels make 40 cents?
9. How many legs have 5 spans of horses?
10. John has 4 dimes, and Henry has 8 nickels; which has the more money?
11. How many letters can I send with 40 cents?
12. How many months in 40 weeks?
13. A boy had 4 dimes. He spent  $\frac{1}{2}$  of his money. How much was left?
14. How many days in  $\frac{1}{2}$  of a month?
15. Balls are 5 cents each; how many will 4 dimes buy?
16. A half-pound of sugar costs 4 cents, what will 5 pounds cost?
17. Add   9    7    9    12    16    7    8    6    4  
13   6   4   7   3   6   5   11   15
18.  $5 \underline{\times} 40$     $2 \underline{\times} 38$     $11 \underline{\times} 33$     $3 \underline{\times} 27$     $10 \underline{\times} 40$     $7 \underline{\times} 28$
19.  $5 \times 8$ ,    $3 \times 10$ ,    $10 \times 4$ ,    $6 \times 6$ .
20.  $6 \times 5$ ,    $9 \times 4$ ,    $8 \times 3$ ,    $7 \times 5$ .
21.  $4 \times 6$ ,    $5 \times 4$ ,    $7 \times 3$ ,    $4 \times 8$ .

**Lesson 45.—Drill Work.**

1.  $\frac{1}{2}$  of 16       $\frac{1}{3}$  of 39       $16 + 8$        $40 - 16$
2.  $\frac{1}{4}$  of 32       $\frac{1}{4}$  of 40       $14 + 2$        $39 - 17$
3.  $\frac{1}{3}$  of 27       $\frac{1}{3}$  of 36       $28 - 14$        $38 - 18$
4.  $\frac{1}{2}$  of 32       $\frac{1}{5}$  of 40       $36 - 18$        $37 - 19$
5.  $\frac{1}{3}$  of 21       $\frac{1}{3}$  of 25       $27 \div 9$        $36 - 20$
6.  $4 + 6 + 3 + 7 + 5 + 4 = ?$        $(8 \times 4) - (13 \times 2)$
7.  $5 + 4 + 6 + 8 + 2 + 3 = ?$        $(40 - 15) + \frac{1}{2}$  of 30
8.  $7 + 7 + 5 + 4 + 8 + 3 + 6 = ?$        $3 \times 4 \times 3 + 2 - 4$
9.  $7 + 8 + 6 + 5 + 4 + 1 + 3 = ?$        $8 + 8 + 8 + 8 + 8 = ?$
10.  $9 + 5 + 3 + 2 + 4 + 6 + 2 = ?$        $7 + 7 + 7 + 5 + 5 + 5 = ?$
11. Write all the odd numbers to forty. Add the first six of them. How many times can you make forty by adding any two of them?
12. A man paid \$40 for 10 weeks' board. How much did he pay a week?
13.  $4 \times 10 = ?$  (Problem)  $40 - 14 = ?$  (Problem)  $? \times 4 = 40$
14.  $5 \times 8 = ?$        $40 \div ? = 10$        $? \times 6 = 36$
15.  $2 \times 20 = ?$  (Problem)  $40 \div ? = 8$        $? + 15 = 39$
16.  $8 \times 5 = ?$        $20 \times ? = 40$        $8 \times ? = 40$
17. Write in letters 85, 64, 90, 48, 73, 29.
18. A farmer has 20 sheep and 19 lambs. How many sheep and lambs has he?
19. Take  $\frac{1}{2}$  of 22 from 40 and then add 9.
20.  $\frac{1}{2}$  of XL. —  $\frac{1}{4}$  of XXIV. = ?
21. A grocer having 20 3-cent oranges, sold all but 8 of them. How much did he get for those he sold?
22.  $8 + 7 + 6 + 5 + 4 + 3 = ?$

**Lesson 46.**

1. Frank bought a ball for 40 cents, and sold it for  $\frac{1}{2}$  of the cost. What did he get for the ball?
2. Eddie had 16 marbles. Jack gave him 6 more, James 5, and Henry 3. How many had he then?
3. In a tree there were 40 birds;  $\frac{1}{4}$  of them flew away. How many were left?
4. How many eggs in  $2\frac{1}{4}$  dozen?
5. If 24 cents will buy 6 balls, how many will 40 cents buy?
6. If  $\frac{1}{4}$  dozen lemons cost 6 cents, what is the cost of 1 dozen?
7. How many nines in 36?
8. If 2 dozen lemons cost 24 cents, what will 3 dozen cost?
9. Frank has 3 five-cent pieces and a quarter of a dollar. He spent  $\frac{1}{4}$  of it. What has he left?
10. Eddie had a 10-cent piece, 5 five-cent pieces, a 3-cent piece, and a 2-cent piece. He bought a kite for 10 cents, and 3 oranges at 5 cents apiece; how many cents had he left?
11. Harry earned 14 cents one day, 9 cents the next, and 17 cents the next. He spent  $\frac{1}{4}$  of it. How much has he left?
12. One quarter and 3 nickels make how many cents?
13. What will two doz. eggs cost if half a dozen cost ten cents?

**Lesson 47.**

1. Fold a square sheet of paper so as to make 16 equal squares. How many squares on a side?
2. Which is the larger,  $\frac{1}{2}$  of an apple or  $\frac{1}{3}$  of the same apple?
3. If 4 lb. of pork cost 40 cents, what will 1 lb. cost? 3 lb.?
4. I bought 20 pens at 2 for a cent, and gave the man a quarter. How much change was left?
5. Ten pies each cut into fourths will make how many pieces? (Picture of 1 pie cut.)
6. John spent \$10 for a coat, \$4 for a vest, and \$6 for a hat. What did the whole cost?
7. A boy had 3 dozen eggs to sell. He sold 1½ dozen. How many eggs did he have left?
8. One-fourth of a piece of cloth costs \$10. What does the whole piece cost?
9. Ned had 40 cents in his bank. He took out a dime and 4 three-cent pieces. How much had he left?
10. If a man earns \$12 in a week and spends \$7, how much does he save in 3 weeks? In four weeks?
11. Jane bought 10 two-cent stamps and 15 postal cards. What did she pay for them?
12. Bessie, Mabel, and May found thirty-six violets. Bessie found nine, and May thirteen. How many did Mabel find?
13.  $40 - 6 - 4 + 9 - 14 = ?$

**Lesson 48.**

1. If your book is 8 inches long and 5 inches wide, how many inches around it? How many inches half way around it? (Picture.)
2. Minnie had \$40. She spent \$4 and then paid  $\frac{1}{4}$  of what was left for a cloak. What did the cloak cost?
3. What is the cost of one bunch of fire-crackers if five bunches cost 40 cents?
4. If you earn 30 ct. a week, how much do you earn in 4 days?
5. Mr. Brown had \$30. He bought 6 tons of coal at \$4 a ton. What did he have left?
6. There were 25 ripe peaches on a tree, and a bad boy stole 7 of them. How many were left?
7. Tom had 24 oranges. He gave Nell 1 dozen and John  $\frac{1}{2}$  of a dozen. How many were left?
8. Bessie is 3 years old; her mamma is 8 times as old. What is the sum of their ages?
9. What will  $\frac{1}{4}$  of 40 apples cost at 2 cents apiece?
10. How many 7-cent tablets can you buy for 38 cents, and how many cents will be left?
11. There are three dozen children in a class. One third of them are boys. How many are girls? How many more girls than boys?
12. I had a pole 24 feet long. I cut off 6 feet at one time, 7 feet at another. How much was cut off?

**Lesson 49.—Test Work.**

1. Add 3, 7, 9, 11, 5, 6.
2. Take  $6 \times 5$  from  $5 \times 7$ .
3. If I cut 7 cakes into quarters, how many pieces will I have? (Picture.)
4. Tom sold a dozen and 2 eggs at 2 cents apiece. What did he get for them?
5. A man bought 8 chairs for \$32. What was the cost of each chair?
6. It took 3 weeks and 5 days to build a wall; how many days did it take?
7. Will went to the store with 30 cents. He spent  $\frac{1}{2}$  of it and lost a nickel. How much had he left?
8. Ned has  $\frac{1}{2}$  of 27 cents, and George has  $\frac{1}{2}$  of 28 cents. How much have both?
9. Tell 3 ways to change a quarter of a dollar.
10. Write 64 in Roman.
11. Change LXXIX. to figures.
12.  $4 \times 9$  are how many dozen?
13.  $30 = 3 \times 8 + ?$     $40 \div 5 = ?$     $? \times 7 = 28$ .
14. If 1 book costs \$11, what will 3 books cost?
15. A lady had 32 apples and gave 5 boys each 6 apples; how many had she left?
16.  $12 + 12 - (10 \div 2) = ?$
17. How many angles have 6 squares?
18. If 40 cents are equally divided among 5 girls, how much does each receive?

## CHAPTER III.

### Lesson 1.—Sight Work.

[NOTE.—See suggestions to teachers.]

1. There are thirty-five plums on a tree and seven on the ground. How many plums in all?
2. We have 38 pupils in our class; to-morrow six new ones are coming. How many will we have then?
3. How many are 39 boys and six boys?
4. Four dozen eggs are how many?
5. How many cents in two quarters?
6. Forty-two less twelve leaves how many?
7. Forty-four divided by 4 equals what?
8. How many half dimes in 45 cents?
9. What is the cost of eight slates at six cents each?
10. What number added to 38 gives 49?
11. How many dimes in fifty cents?
12. If seven loaves of bread cost 42 cents, what is the cost of one loaf?
13. What cost 11 boxes of pepper, at 4 cents a box?
14. Fred lost six cents; he had 43 ct. How many has he left?
15. Give the even numbers from 1 to 47.
16. Give the odd numbers from 1 to 48.

**Lesson 2.**

1.	Add	3	(2) 9	(3) 9	(4) 6	(5) 4	(6) 6
		5	4	8	11	6	5
		10	6	7	9	9	11
		11	3	6	3	6	5
		5	2	5	8	4	9
		<u>7</u>	<u>1</u>	<u>4</u>	<u>7</u>	<u>5</u>	<u>9</u>

7.	Multiply	5	7	8	6	9	4	7	5	6
		<u>9</u>	<u>6</u>	<u>4</u>	<u>7</u>	<u>3</u>	<u>8</u>	<u>7</u>	<u>10</u>	<u>6</u>

8.	From	42	44	41	45	45	43
	Take	<u>36</u>	<u>34</u>	<u>19</u>	<u>39</u>	<u>25</u>	<u>34</u>

9.	<u>3)</u> 42	<u>11)</u> 44	<u>3)</u> 45	<u>2)</u> 46	<u>3)</u> 48	<u>3)</u> 39
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10. 36 is how many times 6 ?

11. 45 is 9 times what number ?

12.  $45 - 9 + 3 = ?$      $40 - ? = 26$     3 times \$.04

13.  $50 + 2 + 13 = ?$      $50 + ? = 10$     5 times \$.08

14.  $43 + 7 - 18 = ?$      $45 + 5 = ?$     7 times \$.06

15.  $9 \times 3 + 16 = ?$      $42 + ? = 7$     11 times \$.04

16.  $8 \times 5 - 14 = ?$      $41 - ? = 16$     6 times \$.06

17.  $45 - 15 + 10 = ?$      $49 - 7 = ?$     8 times \$.06

18.  $\frac{1}{6}$  of 45 (Problem)     $5 \times 8$  (Problem)     $45 - 19$  (Prob-lem)

19.  $\frac{1}{6}$  of 45     $7 \times 6$  (Problem)     $16 + 13$

20.  $\frac{1}{4}$  of 44 (Problem)     $18 + 16$      $18 \times 2$  (Prob-lem)

21.  $\frac{1}{4}$  of 42     $17 + 15$      $15 \times 3$

22.  $\frac{1}{4}$  of 48     $19 + 14$      $14 \times 2$

**Lesson 3.**

1. In 16 quarters how many whole pies? (Illustrate.)
2. A father gave to one of his sons 30 ct., to another 14 ct., and to his daughter 12 ct. How much did he give them in all?
3. I bought a stove for \$44 and a table for  $\frac{1}{4}$  as much. How much did both cost?
4. Count from 3 to 45 and back by sixes.
5. Find the sum of 7 times 4 and 4 times 9.
6. How many ten-dollar bills will pay for \$50 worth of coal?
7. If your slate is 10 inches wide and 12 inches long, what is the distance around it? (Illustrate.)
8. A butcher bought a cow for \$41, and sold her for \$49. How much did he gain?
9. If oranges are worth 5 ct. apiece, and bananas 3 cents apiece, what will a half dozen of each be worth?  $\frac{1}{2}$  dozen of each?
10. What number is doubled to get 46?
11. Write in Roman 46, 54, 98, 50.
12. Write in figures CCLII., CLXII., DCCC.
13. 3) \$.48    7) \$.49    9) \$.45    3) \$.42    2) \$.50
14. Read \$55.14, \$68.75, \$19.50, \$500.28.
15. What is  $3 \times \$20$ ?    $3 \times \$15$ ?
16. Find  $\frac{1}{2}$  of XXXV.
17. Write 86 in letters.

**Lesson 4.**

1. A man bought a peck of plums for 35 cents and sold them for 9 cents more. What did he sell them for?

2. I sold a watch for \$45 and by so doing gained \$9. How much did it cost?

3. What cost 5 lb. of sugar at 5 ct. a pound, and 4 qt. of milk at 5 ct. a quart?

4. Tom had \$12, Nell \$9.06, Will \$8.16, and their father as much as all together. How much had their father?

5. How many dimes would Fred have if he had 40 cents?

6. If I find  $\frac{1}{2}$  of a dozen eggs in one nest and  $\frac{1}{2}$  of a dozen in another, how many eggs do I find in both nests?

7. A cow was bought for \$41 and sold for \$48. What was gained?

$$\begin{array}{r} \text{Multiply } 8 & 7 & 4 & 6 & 7 & 5 & 8 & 16 \\ \underline{-} & \underline{4} & \underline{6} & \underline{8} & \underline{5} & \underline{3} & \underline{7} & \underline{3} \\ & & & & & & & \end{array}$$

$$\begin{array}{r} \text{9. From } \$3.25 & \$1.14 & \$11.60 & \$12.50 & \$3.15 \\ \text{Take } \underline{.40} & \underline{.14} & \underline{.50} & \underline{2.50} & \underline{2.15} \\ & & & & \end{array}$$

$$\begin{array}{r} \text{10. } 6) \underline{48} & 9) \underline{45} & 8) \underline{48} & 5) \underline{50} & 3) \underline{39} & 3) \underline{42} \\ & & & & & \end{array}$$

$$\begin{array}{r} \text{11. Add } 15 & 29 & 14 & 16 & 19 & 24 & 14 \\ \underline{13} & \underline{19} & \underline{25} & \underline{26} & \underline{28} & \underline{25} & \underline{19} \\ & & & & & & \end{array}$$

**Lesson 5.**

1. In 4 pies how many sixths, halves, thirds ?  
(Illustrate.)
2. Write forty-four in two ways.
3. How many school days in 8 weeks ?
4. How many working days in 5 weeks ?
5. In 48 eggs how many dozen ?
6. A lady bought a shawl for \$30 and a dress for  $\frac{1}{2}$  as much. What did both cost ?
7. If I buy some cloth for \$44 and sell it at a loss of \$13, what do I get for it ?
8. If a quarter of a pound of tea costs 12 cents, what will a pound cost ?
9. How many nickels in \$.45 ?
10. If 4 quarts of vinegar can be bought for 28 ct., how many quarts can be bought for 49 ct. ?
11. Mr. Smith gave \$50 to his five boys. How much did each get ?
12. Write in Roman 100, 200, 300, 500.
13. Read C., XC., CX., XCIX., CXIX., CCII.
14. Add 100      200      300      400      500  

$$\begin{array}{r} 25 \\ \hline 45 \\ \hline 50 \\ \hline 48 \\ \hline 41 \end{array}$$
15. Add all the even numbers to 25.
16. Add all the odd numbers to 26.
17. Find the product of \$.15      \$.20      \$.15  

$$\begin{array}{r} 3 \\ \hline 5 \\ \hline 4 \end{array}$$
18.  $\frac{1}{3}$  of 45 +  $\frac{1}{4}$  of 54 = ?

**Lesson 6.**

1. Tom had 18 oranges, Nellie had 15, and Jimmie had 10. How many had all?
2. A man bought a cow for \$45. He paid  $\frac{1}{2}$  of it down. What does he still owe?
3. If 3 books cost \$.48, what will 5 books cost?
4. How many pounds of meat will 50 ct. buy, if one pound is bought for 10 cents?
5. A man bought a second-hand chamber set for \$25. He paid \$3 to put it in order, then sold it for \$40. How much did he make?
6. If you buy 4 slates at 4 ct. each, 6 pencils at 2 ct. each, and have 14 ct. left, how much had you at first?
7. What will 9 pounds of sugar cost at \$.05 a pound?
8. If I cut 6 apples into quarters, to how many children could I give a piece? (Illustrate.)
9. Frank had \$3.50, and his father gave him enough to make \$5. How much did his father give him?
10. Write 306 in words?
11. Write in figures, then in words, CLXIX.
12. If a boy earns \$4 a week, how long will it take him to earn \$48?
13. Find the cost of 4 lb. sugar at \$.08 a pound, 7 lb. lard at \$.12 a pound, and 9 lb. starch at \$.10 a pound.

## Lesson 7.

1.  $\frac{1}{4}$  of \$.40       $3 \times \$.09$        $48 - (3 \times 3)$
2.  $\frac{1}{4}$  of \$.42 (Problem)       $4 \times \$.11$  (Problem)       $50 - (8 \times 3)$
3.  $\frac{1}{4}$  of \$.49       $8 \times \$.06$        $17 + (3 \times 4)$
4.  $\frac{1}{4}$  of \$.48       $4 \times \$.12$  (Problem)       $24 + (8 \times 2)$
5.  $\frac{1}{4}$  of \$.45 (Problem)       $3 \times \$.16$        $3 \times 5 + 16$
6.  $\frac{1}{4}$  of \$.48       $5 \times \$.11$  (Problem)       $4 \times 8 + 6$
7.  $48 - ? = 32$        $? + 36 = 50$
8.  $50 - ? = 24$        $? - 19 = 45$
9.  $39 + ? = 50$        $? \div 4 = 12$
10.  $45 \div ? = 9$        $? \times 6 = 48$
11.  $49 \div 7 = ?$        $? + 15 = 45$
12. From  $9 \times 5$  take  $7 \times 6$ .
13. Add  $3 \times 8$  to  $2 \times 9$ .
14. Add —

\$.06	(15) \$.25	(16) \$.09	(17) \$.15	(18) \$.03
.14	.04	.08	.14	.08
.18	.12	.06	.09	.06
<u>.12</u>	<u>.03</u>	<u>.11</u>	<u>.04</u>	<u>.07</u>

19. Multiply \$.09      \$.08      \$.15      \$.14      \$.12  
                                                                                                          
                                                                                                          
                                                                                                        

20. Add \$3.25, \$4.50, \$1.40, \$3.84.

21. From \$12.75 take \$4.15.

22. 2) \$8.40      3) \$3.75      5) \$5.50      4) \$8.20

23. Multiply \$.56      \$.25      \$.180      \$.240

**Lesson 8.**

1. How much is a quarter and a nickel ?
2. How many 4's in forty-eight ?
3. How many 7's in 49 ?
4. At \$.06 an hour how much will a boy earn in 8 hours ?
5. If 5 slates cost 45 cents, what is the cost of 1 slate? 4 slates?
6. James lives 16 miles east of the city, and John 22 miles east; how many miles from James's to John's? (Illustrate.)
7. May had \$.48. She spent  $\frac{1}{3}$  of it. How much has she left?
8. Add any four numbers to make 52.
9. Add 4 equal numbers to make 44.
10. How many times can you take 6 from 30?
11. Count to 55 by 5's.
12. Give the odd then the even numbers from 1 to 55. From 7 to 70.
13. How far around a lot that is 6 rods long and 5 rods wide? How far half way around it? (Illustrate.)
14.  $7 \times 4$        $18 - 6$        $45 \div 9$  (Problem)
15.  $3 \times 5$        $19 - 5$  (Problem)       $44 \div 4$
16.  $4 \times 9$  (Problem)       $14 - 9$        $36 \div 6$  (Problem)
17.  $7 \times 5$        $15 - 6$        $42 \div 7$
18.  $8 \times 5$        $25 - 9$  (Problem)       $55 \div 5$  (Problem)
19.  $7 \times 6$  (Problem)       $49 - 19$        $54 \div 9$
20.  $4 \times 11$        $40 - 30$        $35 \div 5$

**Lesson 9.**

1. Find the sum of a quarter of a dollar, one dime, two nickels, and three three-cent pieces.
2. A man bought a cook-stove for \$54, and an oil-stove for  $\frac{1}{2}$  as much. What was the difference in cost?
3. How many days does a man work in nine weeks?
4. A load of potatoes had 54 bushels. I bought  $\frac{1}{3}$  of the load. How many bushels had I?
5. How many hats can a man buy for \$54 if 4 hats cost \$24?
6. What is the cost of 3 pounds of rice at \$.08 a pound, and 6 bars of soap at \$.05 a bar?
7. Mr. R. had 42 animals in a field;  $\frac{1}{3}$  are sheep,  $\frac{1}{6}$  are horses, and the rest cows. How many cows are there?
8. How many hours must a boy work to earn \$.65 if he earns 5 ct. an hour?
9. Ella had 48 pencils. She gave 16 to Lucy and 12 to Bessie. How many had she left?
10. Add 3, 5, 7, 4, 3, 2, 4, 9.
11. Add \$2.50    \$8.40    \$9.45    \$7.14    \$6.25  
3.25    2.10    3.15    2.13    2.18
12. From \$12.25    \$35.00    \$16.06    \$18.75  
Take    2.10    2.50    12.06    15.75

**Lesson 10.**

1. A boy had 54 bananas; he ate 5 and gave away 21. How many had he left?
2. Nellie has \$45 in the bank. Her father has put \$5 there for her on each of her birthdays. How old is she?
3. 51 birds were on a tree. 17 flew away, and a boy killed 8. How many were left?
4. How many working days in  $3\frac{1}{2}$  weeks?
5. Henry paid \$16 for a suit; his father paid three times as much for his. What did both pay?
6. Will gave 57 marbles to 3 boys; how many marbles did each boy get?
7. A man had 54 lb. of butter in a tub. How much had he after using  $\frac{1}{2}$  of it?
8. How many months in 4 years and 6 months?
9.  $\frac{1}{2}$  of 40 less  $\frac{1}{2}$  of 33 = ?
10. How much more is XC. than XLV.?
11. Write in Roman 95, 84, 350, 580.
12. Add all the odd numbers to 15.
13. From \$4.84 take \$3.75.
14. Multiply   \$.12            \$.25            \$.60            \$.18  
 $\underline{3}$              $\underline{4}$              $\underline{3}$              $\underline{4}$
15. Add   \$5.10            \$3.25            \$19.25            \$18.24  
 $\underline{3.18}$              $\underline{2.84}$              $\underline{2.16}$              $\underline{2.12}$

**Lesson 11.**

1. If 2 carts cost \$150, what will one cost?  
What will 3 cost?
2. How many half-dollars in \$3.50?
3. How many blank-books at \$.08 each can I buy for \$2.40?
4. How many minutes in 3 hours?
5. What will  $3\frac{1}{2}$  pounds of tea cost at \$.50 a pound?
6. If you give \$135 to 9 persons, what will each person have?
7. A man paid \$144 for 9 calves. What was that apiece?
8. Mr. R. is 42 years old; his son is  $\frac{1}{2}$  as old; his father twice as old. How old is each?
9. If a boat goes 12 miles an hour, how long will it take to go 60 miles?
10. A man earns \$18 a week and spends \$12; how much will he save in a month?
11. A ship sails 38 miles in one day; how far will she sail in a week?
12. 9 tons of coal cost \$36. What will one ton cost? 4 tons?
13. What is the sum of twenty-five cents, eleven cents, fourteen cents, thirty cents, a dime, a three-cent piece, and a nickel?
14. Paid \$4.20 for wheat, \$.80 for corn, and \$7.30 for oats. What did all cost?

**Lesson 12.**

1. Add  $\begin{array}{r} \$0.05 \\ (2) \$0.11 \\ (3) \$0.06 \\ (4) \$0.15 \\ (5) \$0.08 \end{array}$   
 $\begin{array}{r} .25 \\ .04 \\ .13 \\ .02 \\ .09 \end{array}$      $\begin{array}{r} .04 \\ .04 \\ .16 \\ .05 \\ .07 \end{array}$      $\begin{array}{r} .10 \\ .05 \\ .11 \\ .10 \\ .16 \end{array}$      $\begin{array}{r} .07 \\ .09 \\ .08 \\ .07 \\ \hline .07 \end{array}$

6. Write problems for the first two of the above.

7.  $5) \$3.50$   $2) \$2.50$   $2) \$1.18$   $4) \$4.24$   $8) \$16.88$

8.  $\$0.04) \$2.80$   $\$0.05) \$2.50$   $\$0.09) \$3.60$   $\$0.07) \$2.80$

9. Write problems for any two of the last examples.

10. 8 times 5; 9; 4; 8; 3; 7; 11; 12; 2; 5; 6.

11. 9 times 4; 12; 3; 11; 2; 10; 5; 9; 6; 8; 7.

12. Write in Roman 66, 84, 95, 216.

13. From CXII. take  $9 \times 9$ .

14. Write in figures CCIX.

15. Write in words CCCXL.

16. Write any number of three figures, then write it in words, and in Roman.

17.  $18 + 15$                        $16 \times 3$                        $49 - 17$

18.  $17 + 16$  (Problem)               $18 \times 2$  (Problem)               $55 - 31$

19.  $25 + 15$                        $11 \times 5$                        $42 - 15$

20.  $55 - 19$                        $9 \times 6$  (Problem)                       $28 + 9$

21.  $55 \div 11$  (Problem)               $54 \div 9$                        $36 \div 4$

22.  $42 \div 6$                        $17 \times 3$                        $8 \times 6$

23.  $48 \div 4$  (Problem)               $16 \times 3$  (Problem)               $2 \times 26$

**Lesson 13.**

1. Willie had 53 marbles and gave 9 to Max and 18 to Fred. How many had he left?
2. How many boxes will hold 54 peaches, if each box holds  $\frac{1}{2}$  dozen?
3. How many boys are needed for 6 ball nines?
4. How many thirds in 18 oranges?
5. A man bought  $4\frac{1}{2}$  doz. lemons at 2 cents apiece. How much did they cost?
6. A boy put his money into three boxes. Into one he put \$.12, into another \$.18, and into the third box enough to make \$.55. How much money in the third box?
7. If it takes  $\frac{1}{2}$  a dozen eggs for one cake, how many eggs will it take for 9 cakes?
8. When bananas are 48 cents a dozen, how much will one cost?
9. Will divided 51 marbles among 3 boys. How many did each get?
10. A teacher earns \$10 a week; how long will it take her to earn \$100?
11. A half pound of coffee costs \$.18. What will 3 lb. cost?
12. How many feet of fence will be needed to go around a garden 25 ft. long and 21 ft. wide? (Illustrate.)

**Lesson 14.**

1. If 8 bars of soap cost \$.56, what is the cost of one bar?
2. What is the cost of 9 lb. of sugar at 6 ct. a pound?
3. Willie has 20 marbles, James 20, and John 10. How many have all?
4. May had \$.59; she spent 10 cents for paper; how much had she left?
5. Into how many lots of 7 acres each can a 56-acre lot be divided?
6. How many days in 6 weeks?
7. How many eggs in 4 dozen?
8. If I owe \$.58 and pay all but 10 cents, how much have I paid?
9. Max bought a knife for 41 cents and sold it so as to gain 10 cents; what did he sell it for?
10. 

$10 + 1$	$10 + 2$	$10 + 3$	$10 + 4$
$20 + 1$	$20 + 2$	$20 + 3$	$20 + 4$
$30 + 1$	$30 + 2$	$30 + 3$	$30 + 4$
$40 + 1$	$40 + 2$	$40 + 3$	$40 + 4$
$50 + 1$	$50 + 2$	$50 + 3$	
11. 

$10 - 2$	$10 - 3$	$10 - 4$	$10 - 5$
$20 - 2$	$20 - 3$	$20 - 4$	$20 - 5$
$30 - 2$	$30 - 3$	$30 - 4$	$30 - 5$
$40 - 2$	$40 - 3$	$40 - 4$	$40 - 5$
$50 - 2$	$50 - 3$	$50 - 4$	$50 - 5$
12. Count to 55 by fives.

**Lesson 15.**

1. A man bought a watch for \$45 and sold it for \$15 more than that. What did he sell it for?
2. Gave \$50 for a cow,  $\frac{1}{2}$  as much for a calf. What did both cost?
3. How many cents in 19 three-cent pieces?
4. What piece of money is  $\frac{1}{2}$  of \$.60?
5. 36 eggs will make how many cakes, if  $\frac{1}{2}$  dozen eggs are used for 1 cake?
6. A girl earned \$.49 on Monday, and  $\frac{1}{2}$  as much on Tuesday. What did she earn in both days?
7. A boy had 60 peaches. He ate  $\frac{1}{3}$  of them and gave away 20. How many had he left?
8. What will 28 apples cost at \$.02 each?
9. If 4 apples cost 12 cents, how much will 9 apples cost?
10. What 7 equal numbers make 56?
11. Add —

\$ .05	(12)	\$ .10	(13)	\$ .11	(14)	\$ 1.50	(15)	\$ 2.50
.08		.06		.12		.10		.04
.12		.08		.02		.05		.06
.10		.04		.08		.04		.10
.08		.09		.11		.06		.05
.09		.12		.09		.01		.05

16. From	\$ 3.25	\$ 18.46	\$ 25.30	\$ 50.00
Take	<u>2.25</u>	<u>17.46</u>	<u>25.00</u>	<u>49.00</u>

**Lesson 16.**

1. Mr. A. bought a wagon for \$48, and a pole for  $\frac{1}{2}$  as much. What was the cost of both?
2. From 59 take 13 and 7 and 9 and 5.
3. In 5 years how many months?
4. If it takes a man 27 days to do a piece of work, how long will it take 3 men?
5. Find  $\frac{1}{2}$  of 60 chairs.
6. Will had 60 marbles; he gave Tom  $\frac{1}{4}$  of them, and James  $\frac{1}{2}$  of them. How many did each boy have then?
7. How many faces have 4 cubes?
8. If potatoes are \$.60 a bushel, what will  $\frac{1}{2}$  bushel cost?
9. How many barrels, each holding 3 bushels, will be needed for 60 bushels of apples?
10. Write in Roman 306, 508, 609, 805.
11.  $$.10 + $.05$        $$.10 - $.05$ <sup>(Prob-lem)</sup>       $$.10 - $.06$
12.  $$.20 + $.05$ <sup>(Prob-lem)</sup>       $$.20 - $.05$        $$.20 - $.06$
13.  $$.30 + $.05$        $$.30 - $.05$        $$.30 - $.06$
14.  $$.40 + $.05$        $$.40 - $.05$        $$.40 - $.06$ <sup>(Prob-lem)</sup>
15.  $$.50 + $.05$ <sup>(Prob-lem)</sup>       $$.50 - $.05$ <sup>(Prob-lem)</sup>       $$.50 - $.06$ <sup>(Prob-lem)</sup>
16. Add —

\$.25	(17) \$.15	(18) \$.09	(19) \$.24	(20) \$.11
.15	.12	.08	.19	.12
.16	.25	.12	.14	.13
.04	<u>.11</u>	<u>.11</u>	<u>.06</u>	<u>.09</u>
				<u>.15</u>

**Lesson 17.**

1. How many dimes in 60 cents ?
2. A man had 60 bushels of wheat and sold 29 bushels. How many bushels were left ?
3. Find  $\frac{1}{4}$  of 60 and take it from 30.
4. Bought 9 lamps at \$4 apiece and sold them at \$7 apiece. How much did I gain ?
5. I had 5 doz. oranges ; I ate 17. How many were left ?
6. What cost 2 oranges at \$.60 a dozen ?
7. In one field there were 20 cows; in another twice as many. How many in the second field ? How many in both fields ?
8. A lady paid \$15.50 for a dress, \$5.25 for shoes, and \$8.75 for a hat. What did all cost ?
9. At \$.05 each, how many tablets can be bought for \$3.00 ?
10. How many minutes in 5 hours ?
11. If a man puts \$10 in the bank every month, how much will he put in in a year ?
12. What will be left from \$5.00 if I buy 4 bushels of potatoes at \$.80 a bushel ?
13. A hat costs \$.75, a vest \$1.25, a coat \$10.50, and boots \$5. What do all cost ?
14. If you had \$2.80 to divide among 7 boys, how much would each get ?
15. If I pay \$.48 for 8 bars of soap, what will I pay for 1 bar ? For 9 bars ?

**Lesson 18.**

1. If  $\frac{1}{4}$  lb. candy cost \$.15, what will one pound cost?
2. James has 4 rose-bushes with 3 roses on each bush. If he sells the roses at \$.05 apiece, how much does he get for them?
3. I bought 8 yd. of cloth at \$.07 a yd. and gave the clerk a fifty-cent piece and a dime. What change ought I to receive?
4. If a man earns \$12 a week and spends \$7, how much will he save in 12 weeks?
5. If a horse eats a peck of oats a day, how many pecks will he eat in 8 weeks?
6. Charles had \$.56; he spent eight and gave  $\frac{1}{4}$  of what he then had for a ball. What did his ball cost? How many cents had he left?
7. What is the sum of 8, 9, 7, 10, 6, 11?
8.  $4 \times 9 + ? = 12$        $5 \times 12 - 16 = ?$
9.  $5 \times 6 - ? = 10$        $7 \times 6 + ? = 60$
10.  $5 \times 12 \div ? = 6$        $58 - 10 - 4 = ?$
11.  $10 - 6$        $50 - 6$        $30 - 7$        $11 + 2$
12.  $20 - 6$        $60 - 6$  (Problem)       $40 - 7$        $21 + 2$
13.  $30 - 6$        $10 - 7$        $50 - 7$        $31 + 2$
14.  $40 - 6$  (Problem)       $20 - 7$        $60 - 7$        $41 + 2$
15.  $5) \$ .15$        $5) \$ .25$        $5) \$ .35$        $5) \$ .45$  (Problems)
16.  $\$.05) \$ .15$        $\$.05) \$ .25$        $\$.05) \$ .35$        $\$.05) \$ .45$  (Problems)

**Lesson 19.**

1. In a garden are 48 plants in 6 equal rows. How many plants in each row?
  2. How many weeks must a man work to earn \$48, if he earns \$12 a week?
  3. A boy paid \$.40 for a knife and \$.15 for a slate; what was the cost of both?
  4. From a piece of calico containing 58 yards I cut 18 yards; what was left?
  5. If I earn \$.09 a day for a week, how much have I earned?
  6. At 8 cents each, what will 7 cocoanuts cost?
  7. John lives 10 blocks east of the school, and William 15 blocks west. How far does John live from William? (Illustrate.)
  8. If a ship sails 63 miles in 9 hours, how far will she sail in 1 hour?
- |   |              |              |               |
|---|--------------|--------------|---------------|
| 9. $11 + 4$                             | $11 - 4$     | $12 - 5$     | $12 + 5$      |
| 10. $21 + 4$                            | $21 - 4$     | $22 - 5$     | $22 + 5$      |
| 11. $31 + 4$                            | $31 - 4$     | $32 - 5$     | $32 + 5$      |
| 12. $41 + 4$                            | $41 - 4$     | $42 - 5$     | $42 + 5$      |
| 13. $51 + 4$                            | $51 - 4$     | $52 - 5$     | $52 + 5$      |
| 14. Count to 60 by 5's; by 3's; by 2's. |              |              |               |
| 15. $9 \times 5$                        | $8 \times 4$ | $7 \times 5$ | $9 \times 7$  |
| 16. $9 \times 4$                        | $8 \times 6$ | $6 \times 7$ | $7 \times 7$  |
| 17. $9 \times 6$                        | $8 \times 5$ | $7 \times 8$ | $6 \times 6$  |
| 18. $9 \times 3$                        | $8 \times 8$ | $7 \times 4$ | $11 \times 4$ |

**Lesson 20.**

1. John had 21 marbles, and Ned had twice as many. How many had both?
2. John had 64 apples; he gave  $\frac{1}{4}$  of them to his sister and  $\frac{1}{2}$  of them to his father. How many did he have left?
3. Which is more,  $4 \times 4$  or  $\frac{1}{4}$  of 64?
4. When I pay \$.40 for 5 lb. of sugar, how many pounds can I buy for 64 cents?
5. 9 is what part of 63?
6. I bought a wagon for \$51. I sold it at a gain of \$12. For what did I sell it?
7. A man bought a cow for \$64 and sold her for \$45. What did he lose?
8. What cost 9 spools of thread at \$.07 each?
9. If 8 yd. of ribbon cost 64 ct., what will 1 yard cost? 3 yards?
10.  $12) \underline{60}$      $5) \underline{45}$      $8) \underline{56}$      $11) \underline{55}$      $5) \underline{65}$
11. Multiply and give problems,  $16$      $13$      $14$      $18$   
 $\underline{4}$      $\underline{5}$      $\underline{4}$      $\underline{3}$
12.  $$.12) \underline{.60}$      $$.05) \underline{.45}$      $$.08) \underline{.56}$      $$.11) \underline{.55}$
13. Give problems for the last four examples.
14. From \$.60    \$.45    \$.56    \$.55    \$.65  
 Take  $\underline{.15}$      $\underline{.15}$      $\underline{.16}$      $\underline{.13}$      $\underline{.19}$

**Lesson 21.**

1. How much money would you have if I should give you each of the gold coins of this country?
2. When our flag was first made it had 13 stars. Now it has — stars. How many stars have been added?
3. A man bought a hat for \$5, a vest for \$3, and a coat for twice the cost of the hat and vest. What did the coat cost? What did all cost?
4. If your tablet is 8 inches long and 6 inches wide, what is the distance around it?  $\frac{1}{2}$  way around it? (Illustrate.)
5. A newsboy leaves 14 papers in one street, 19 in another, and 28 in another. How many papers does he carry?
6. Name all the silver coins of this country.
7. What coins are made of bronze?
8. What coins are made of nickel?
9. How much money in our 5 smallest coins?
10.  $13 + 5$        $13 - 6$        $14 + 7$        $14 - 7$
11.  $23 + 5$        $23 - 6$        $24 + 7$        $24 - 7$
12.  $33 + 5$        $33 - 6$        $34 + 7$        $34 - 7$
13.  $43 + 5$        $43 - 6$        $44 + 7$        $44 - 7$
14.  $53 + 5$        $53 - 6$        $54 + 7$        $54 - 7$
15. Add 6, 9, 8, 7, 3, 4, 2, 15, 4.
16. Multiply \$.15    \$.25    \$.35    \$.40    \$.50  

$$\begin{array}{r} 3 \\ \hline 3 \end{array} \quad \begin{array}{r} 3 \\ \hline 2 \end{array} \quad \begin{array}{r} 2 \\ \hline 4 \end{array} \quad \begin{array}{r} 4 \\ \hline 5 \end{array}$$

**Lesson 22.**

1. James earns \$.08 an hour. If he works 8 hours a day, how much does he earn a day?
2. Meat is \$.10 a pound, and sugar \$.06. What will 4 pounds of each cost?
3. When bananas are \$.05 each, and oranges \$.04 each, how much must I pay for 7 of each?
4. If a hen lays an egg every day, how many will she lay in 9 weeks?
5. How many weeks will \$5 last a man who uses \$.05 a week?
6. A man paid \$64 for chairs at \$8 each. If he sells them for \$9 each, what does he make on them?
7. To  $\frac{1}{3}$  of 63 add  $\frac{1}{3}$  of 48.
8. How many quarters in 16 apples?
9. How many pages in a book of 32 leaves?
10. Write in words LXXXIX.
11. XC. + CIV. + LXV. - XCVII. = ?
12.  $\frac{1}{3}$  of 64 +  $\frac{1}{10}$  of 40 = ?       $6 \times 9 - \frac{1}{3}$  of 36 = ?
13.  $\frac{1}{3}$  of 64 ×  $\frac{1}{3}$  of 42 = ?       $\frac{1}{3}$  of 63 ÷ (3 × 7) = ?
14. Begin with 9 and count by 4's to 65.
15. Begin with 7 and count by 6's to 61.
16. Begin with 4 and count by 8's to 60.
17. Count back to 8 by 4's from 68.
18. Add    14    15    18    27    29    43    29    38  
               36    28    43    34    35    17    34    27

**Lesson 23.**

1. Fred bought a violin for \$2.25. What must he sell it for to make \$.50?
2. What is the sum of 4 dollars 5 cents, 7 dollars 15 cents, and 25 dollars 6 cents?
3. A lady bought a dress for 7 dollars 27 cents, trimmings for 65 cents, tape for 6 cents, thread for 13 cents, and some needles for 9 cents. What did she pay for all?
4. Bought a sack of flour for \$2.38; what change should I get from a 5-dollar bill?
5. What is the cost of 2 cords of wood at \$3.50 a cord?
6. If 8 tons of coal cost \$35.20, how much will 1 ton cost? 6 tons?
7. How many spools of thread at \$.04 a spool can you buy for \$.36?
8. In an orchard are 8 rows of trees with 9 trees in each row. How many trees in the orchard?
9. I have five 10-pound jars of butter, and sell it all at a profit of \$.06 a pound. What do I make?
10. How many pounds of steak at \$.08 a pound can I buy for \$3.20?
11. If \$.60 be paid for thread at \$.04 a spool, how many spools are bought?
12. Count from 6 to 61 and back by fives.
13. Count from 8 to 62 and back by 6's.

**Lesson 24.**

1. From 8 dollars 9 cents, take the sum of one dollar 15 cents, 2 dollars 6 cents, 1 dollar 7 cents, and 38 cents.
2. What is the profit on goods bought at \$3.16 and sold for \$4.19?
3. Multiply fifteen cents by 6; by 8; by 4; by 9.  
(Problems.)
4. What is the quotient of \$2.20 divided by 10?  
by 5? by 4?
5. How many suits of clothes can be made from 63 yards of cloth, if one suit takes 7 yards?
6. A wagon cost \$64, a harness  $\frac{1}{4}$  as much.  
What did both cost?
7. How long will 240 apples last if 8 are eaten every day?
8. I bought a hat, dress, and cloak for \$65. The hat cost \$3; the dress cost \$24. What did the cloak cost?
9. What will 5 books cost at \$1.50 apiece?
10. Nell bought 3 dolls at \$.25 each, and gave the man \$2. What was the change?
11. How many street-car rides can I have for \$2?
12. How many \$.04-tablets can I buy for \$2.00?
13. Find the cost of four dozen lemons at 4 cents each.
14. Write in figures two hundred dollars and six cents.

**Lesson 25.**

1. Mr. Smith was 55 years old 9 years ago; how old is he now?
2. Two boys went fishing; one caught 16 fish, and the other 11. How many did both catch?
3. A boy bought a sled for 19 cents and gave 7 cents to have it painted; he then sold it for 37 cents. What did he make?
4. May had \$.50. She spent \$.15 for some lace for her doll. How many cents had she left?
5. At \$12 a week, how much will a man earn in 5 weeks?
6. If a pair of boots cost \$6, what will be the cost of 5 pair? 7 pair? 9 pair?
7. If a boy can ride a bicycle 6 miles in 6 hours, how far does he go an hour?
8. At 7 ct. a pound, how many pounds of sugar can I buy for \$.63?
9. Count from 5 to 69 and back by fours.
10. Count from 28 to 72 and back by 4's.
11. 9 times 4; 6; 3; 2; 9; 8; 7; 10; 11; 12.
12. Count by nines to 108.
13.  $11 + 7$        $11 - 7$        $12 + 7$        $12 - 7$
14.  $21 + 7$        $21 - 7$        $22 + 7$        $22 - 7$
15.  $31 + 7$        $31 - 7$        $32 + 7$        $32 - 7$
16.  $41 + 7$        $41 - 7$        $42 + 7$        $42 - 7$
17. Add  $\$.16$      $“.25$      $“.34$      $“.56$      $“.62$      $“.49$   
 $.09$              $.08$              $.20$              $.09$              $.10$              $.11$

**Lesson 26.**

1. Mr. R. was 36 years old 24 years ago. How old is he now?
2. A grocer had 6 dozen eggs and sold  $\frac{1}{4}$  of them. How many were sold and how many were left?
3. How many feet of wire netting will it take to enclose a garden 18 ft. square? (Illustrate.)
4. If a man earns \$36 a month and saves \$6, how long will it take him to save \$72?
5. How many feet of fence must a man have to go around a garden 20 ft. long by 15 ft. wide? (Illustrate.)
6. If I get a 2-dollar bill changed, receiving 1 half-dollar, 2 quarters, and 3 ten-cent pieces, how much will still be due me?
7. In 10 weeks how many days?
8. Write in Roman, 316, 428, 594, 626, 718.
9. Read CCXVI., DLX., CCCXCII., DCCVII.
10. Add \$3.14 (11) \$1.06 (12) \$45.00 (13) \$2.20
 

2.12	7.09	1.12	4.50
.84	.14	.13	7.10
.16	.38	1.08	12.19
<u>.05</u>	<u>.21</u>	<u>.02</u>	<u>6.01</u>
14. 3) 210    5) 325    4) 728    12) 144    6) 660
15. Count by 8's from 5 to 69 and back.
16. Count from 6 to 69 and back by 7's.
17. Give the even numbers from 1 to 70.

**Lesson 27.**

1. Will had \$5, and gave \$.15 to his sister, and \$.09 to his brother ; he spent \$.12 for candy, and then gave his mother  $\frac{1}{2}$  of what was left. How much did he have himself ?
2. A stove cost \$24. A parlor set cost 3 times as much. How much more did the parlor set cost than the stove ?
3. If two cows cost \$70, what will 1 cow cost ?
4. How many dimes in \$.70 ?
5. Twenty-eight horseshoes will shoe how many horses ?
6. In our class there are seven children in each row. How many in 8 rows ?
7. Will had 35 papers, and Harry had twice as many. How many had Harry ?
8. At \$4 a day, how much does a man earn in 3 weeks ?
9. If I have \$8 in quarters, how many quarters have I ?
10. How many legs have a dozen flies ?
11. The children had 10 weeks' vacation. They visited in the country 18 days. How many days of the vacation were left ?
12. Mrs. Jones bought a cloak for \$64, and paid  $\frac{1}{4}$  of it down. How much did she still owe ?
13. How many two-cent pieces in \$.70 ?
14. How old will you be in 12 years ?

**Lesson 28.**

1. A man had \$13.72 in his pocket, and spent \$5.97; how much had he left?
2. Julia had \$.25 and earned \$.17 more. She spent a dime and lost a nickel. How much did she have left?
3. If you go to bed at 9 o'clock and rise at 7, how many hours do you sleep?
4. If a ton of coal cost \$4.20, what will 6 tons cost?
5. How many oranges can be bought for \$2.40 if one can be bought for 3 ct.?
6. Change 740 cents to dollars.
7. Change to dollars 325 cents; 698 cents; 945 cents.
8. If a pound of sugar costs \$.09, how many pounds can be bought for \$4.95?
9. Change \$2.50 to cents; \$3.59; \$7.48; \$8.64.
10. What is the sum of 31 dollars 9 cents, 200 dollars 63 cents, and 27 dollars 36 cents?
11. A lady bought groceries amounting to \$1.86. What change should she have from a 2-dollar bill?
12. What cost 8 cords of wood at \$3.25 a cord?
13. If 7 barrels of apples cost \$14.84, what is the cost of 1 barrel?
14. If 12 lb. of tea cost \$9.60, what will 1 pound cost?
15. What is the cost of 9 lb. of coffee at 20 cents a pound?

**Lesson 29.**

1. How many 5-cent pieces in \$.75 ?
2. How many eggs in 6 dozen ?
3. What must I pay for 7 pencils at \$.04 each ?
4. If 3 girls can do a piece of work in 6 days, in how many days can one girl do it ?
5. If \$.15 is  $\frac{1}{5}$  of my money, how much money have I ?
6. How many months in 6 years ?
7. How many boots in 3 dozen pair ?
8. How many are 6 dozen oranges less 8 oranges ?
9. What four pieces of money make 75 ct. ?
10. In 72 books how many dozen ?
11. If it takes 9 yd. of calico for one dress, what will it take for 8 dresses ?
  
12.  $9 \times 8$        $12 \times 6$        $63 \div 7$        $70 - 40$
13.  $4 \times 15$        $72 \div 9$        $15 + 15$        $75 - 25$
14.  $3 \times 12$        $64 \div 8$        $12 + 20$        $36 - 20$
15.  $8 \times 8$        $7 \times 9$        $18 + 10$        $50 - 25$
16. Count from 7 to 73 and back by sixes.
17. Count from 8 to 78 and back by sevens.
18.  $11 + 9$        $11 - 9$        $13 + 8$        $13 - 8$
19.  $21 + 9$        $21 - 9$        $23 + 8$        $23 - 8$
20.  $31 + 9$        $31 - 9$        $33 + 8$        $33 - 8$
21.  $41 + 9$        $41 - 9$        $43 + 8$        $43 - 8$
22.  $51 + 9$        $51 - 9$        $53 + 8$        $53 - 8$
23.  $61 + 9$        $61 - 9$        $63 + 8$        $63 - 8$

**Lesson 30.**

1. If I read 12 pages of a book one day, 17 another day, and there are still 51 pages to be read, how many pages in the book ?
2. Charlie had \$.75. He spent \$.30 for a book, \$.10 for pencils, and \$.10 for a tablet. What had he left ?
3. A man who had 10 sheep sold  $\frac{1}{2}$  of them at \$8 each, and the other half at \$7 each. What did he get for all ?
4. When pencils are 4 ct. each, how many can I buy for \$.75, and how many cents will I have for candy ?
5. Mr. B. paid \$72 for a wagon,  $\frac{1}{4}$  as much for a pole, and \$17 for a harness ; what did all cost ?
6. James had \$.75 and spent \$.20, and gave  $\frac{1}{3}$  of what he then had for a top. What did the top cost ?
7. When grapes are \$.30 a lb., how much should I give for 2 lb. ?
8. Harry sold 36 eggs at \$.25 a doz. What did he get for them ?

9. Product   \$14.25    \$12.15    \$14.72    \$15.60  
               7          3          5          6

10. Difference   \$10.24   \$125.16   \$327.19   \$96.78  
               8.12      24.11     34.16     39.89

**Lesson 31.**

1. James had 5 dimes, 4 nickels, and 3 cents. How much money had he ?
2. A farmer had \$135. He bought a cow for \$63. How many dollars had he left ?
3. If peanuts are 3 ct. a pint, what will 24 pt. cost ?
4. What cost 4 boxes of matches, each containing 9 bunches, at \$.02 a bunch ?
5. Will bought a horse for \$75 and paid \$15 down ; how long will it take to pay the rest at \$12 a month ?
6. How far around a lot 28 ft. long by 15 ft. wide ? (Illustrate.)
7. A boy bought a printing-press for \$75. He could pay only  $\frac{1}{2}$  down. What does he still owe ?
8. At \$.05 each, what will 3½ dozen lemons cost ?
9. Find the cost of 4 lb. of sugar at \$.08 a lb., and 8 qt. vinegar at \$.05 a qt.
10.  $\$ \frac{1}{2} + \$ \frac{1}{2} + 4 \text{ dimes} + 3 \text{ cents} = ?$
11. What is the cost of 2½ lb. of butter at \$.30 a pound ?
12. Sum    \$36.15    \$18.75    \$16.46    \$320.16  
              14.29    3.04    17.94    15.08
13. 3) \$321.09    5) \$124.05    4) \$36.48    10) \$125.50
14. Count from 6 to 69 and back by 9's.

**Lesson 32.**

1.	Sum \$3.20	(2) \$35.16	(3) \$25.16	(4) \$125.10
	8.04	1.09	1.24	3.15
	.92	7.04	.98	2.19
	.25	.28	.17	.46
	.06	.09	.21	.12

5. Write and add 15 dollars 6 cents, 12 dollars 19 cents, 10 dollars 8 cents, 3 dollars 6 cents, and 20 dollars two cents.
6. Write in Roman 365, 942, 281, 316.
7. XCVII., CCCLII., DCLIX., DCCCLII.
8. From  $9 \times 8 - 2$  take  $\frac{1}{2}$  of 72.
9. From CXC. take  $\frac{1}{3}$  of 72.
10. Add  $\frac{1}{4}$  of 72,  $\frac{1}{3}$  of 81, and  $\frac{1}{2}$  of 36.
11. 7 times 5 ; 8 ; 6 ; 4 ; 3 ; 9 ; 11 ; 7 ; 10 ; 12.
12. 8 times 9 ; 7 ; 3 ; 6 ; 28 ; 5 ; 11 ; 10 ; 12.
13. What is the product of \$13.35 multiplied by 4 ; by 7 ; by 8 ; by 10 ? (Problems.)
14. What is the quotient of \$14.80 divided by 2 ; by 5 ; by 8 ; by \$.05 ; by \$.08 ? (Problems.)
15.  $\frac{1}{5}$  of 72               $\frac{1}{6}$  of 65               $\frac{1}{7}$  of 75 (Problem)
16.  $\frac{1}{8}$  of 72 (Problem)     $\frac{1}{9}$  of 63 (Problem)     $\frac{1}{10}$  of 72
17.  $\frac{1}{12}$  of 60               $\frac{1}{15}$  of 48               $\frac{1}{18}$  of 60 (Problem)
18.  $\frac{1}{16}$  of 70               $\frac{1}{20}$  of 70               $\frac{1}{25}$  of 70
19. Give the odd numbers from 1 to 75.
20. Add any three of them to make 51.
21. Add any four of them to make 24.

**Lesson 33.**

1. A man put \$150 in the bank. He drew out \$12.75 at one time, \$3.42 at another time, and \$17.84 at another. How much was left in the bank?

2. A grocer makes a profit of \$.18 on every sack of flour he sells; how much profit does he make on 4 sacks? 6 sacks?

3. I bought 8 boxes of soap for \$30.24; what was the cost of 1 box?

4. How many yards of cloth at 9 cents a yard can I buy for \$4.86?

5. If a pound of soda costs 9 cents, how many pounds can you buy for \$2.34?

6. At 15 cents a pound, what will 5 pounds of beef cost?

7. At \$1.28 apiece, what will 6 chairs cost?

8. If a barrel of flour is worth \$8.20, what are 7 barrels worth?

9. A lady bought 5 lb. of sugar at 6 ct. a pound, 3 lb. of rice at 12 cents a pound, 2 loaves of bread at 5 ct. a loaf, and a watermelon for 36 cents. What was her bill?

10. If 3 pounds of cheese cost 48 cents, what will 1 pound cost? 6 pounds?

11. How many lb. of veal can be bought for \$.70 if five pounds cost 35 cents?

12. Count from 3 to 75 and back by 4's.

**Lesson 34.**

1. 80 school-days are how many school-weeks ?
2. How many spools of thread at 5 ct. a spool can I buy for \$.80 ?
3. If 1 bushel of potatoes cost \$.80, what will  $\frac{1}{4}$  bushel cost ?
4. If 5 sheep cost \$20.75, what will 1 sheep cost ? 8 sheep ?
5. How many fingers have 7 boys ?
6. How many glass eyes will be needed for thirty-eight dolls ?
7. How many nickels in 80 cents ?
8. What is the cost of 20 barrels of apples at \$4 a barrel ?
9. Two pounds of candy will fill how many bags if I put  $\frac{1}{4}$  lb. in each bag ?
10. How far around a square that is 20 inches on a side ? (Illustrate.)
11. Count from 3 to 75 and back by 6's.
12. Count from 4 to 76 and back by 6's.
13.  $4 \times 16$        $4 \times 20$        $80 \div 8$        $\frac{1}{4}$  of 80
14.  $3 \times 20$        $5 \times 9$        $72 \div 9$        $\frac{1}{3}$  of 80
15.  $2 \times 13$        $9 \times 7$        $63 \div 7$        $\frac{1}{3}$  of 72
16.  $5 \times 16$        $8 \times 10$        $48 \div 6$        $\frac{1}{3}$  of 72
17. Add 6 to 16, 26, 36, 46, 56, 66.
18. Subtract 7 from 16, 26, 36, 46, 56, 66, 76.
19. Add the even numbers from 1 to 13.
20. Add the odd numbers from 1 to 14.

**Lesson 35.**

1. Bought 2 tables at \$17 each, 6 chairs at \$7, and a mirror for \$25.50. What did all cost?
2. A man bought a horse for \$80 and paid \$45 down. What does he still owe?
3. If you pick 18 quarts of berries at 4 ct. a quart, what will you earn?
4. When lemons cost 3 ct. apiece, how many can be bought for \$1.26?
5. A book cost \$.35, a tablet \$.18, and some pencils \$.24. What did all cost?
6. Tom had 80 ct. and spent  $\frac{1}{4}$  of it for a ball, and gave away 25 ct. What did he have left?
7. How many dimes in 80 cents?
8. At 4 cents a quart, what will 18 quarts of berries cost?
9.  $6\frac{1}{4}$  dozen are how many?
10. How far is it around a square that is 19 feet on a side? (Illustrate.)
11. I have in my purse 3 quarters of a dollar, a five-cent piece, and a cent. How much money have I?
12. If 4 dresses of 15 yd. each are cut from a piece of cloth containing 78 yards, how much is left in the piece?
13. Six pies cut into eighths will make how many pieces? (Illustrate.)

**Lesson 36.**

1. James is 10 years old ; his sister is twice as old. How old is his sister ? How old are both together ?
2. Three boys picked 46 quarts of strawberries. John picked 7 quarts ; George picked 16 quarts. How many quarts did Frank pick ?
3. You can do 8 examples each half-day ; how many examples can you work in a week ?
4. A man is 38 years old ; how old will he be in 25 years ?
5. Will earns \$72 a year ; how much does he get a month ?
6. I bought a wagon for \$56, a harness for  $\frac{1}{2}$  as much, a pole for  $\frac{1}{4}$  as much ; how much for all ?
7. If 8 horses eat 72 bushels of oats in a month, how many bu. will 5 horses eat ?
8. Six boys earned \$1.62 ; what was each boy's share of the money ?
9. Add \$36.05 (10) \$4.28 (11) \$2.65 (12) \$3.27  

1.16	16.20	1.19	5.16
2.30	15.10	.74	17.19
<u>7.84</u>	<u>.09</u>	<u>.08</u>	<u>.15</u>
13. Write in Roman 692, 587, 326, 763, 291.
14. CCXXVI., DCLXVI., DXCIX., DCCCLXXVI.
15. What is the quotient of \$18.70 divided by 2 ? by 5 ? by \$.02 ? by \$.05 ? (Problems.)

**Lesson 37.**

1. If 3 hats cost \$15, what will 8 hats cost?  
12 hats?
2. John had 50 ct. He gave 15 ct. to his brother  
and 10 ct. to another boy. How much had he left?
3. A man had \$42.21; he spent  $\frac{1}{4}$  of it; how  
many dollars had he left?
4. John had \$38. How many half-dollars had he?
5. I had a \$10-bill. I spent \$4.25. What was  
left?
6. What will 5 hats cost if 9 hats cost \$45?
7. How much is  $\$ \frac{1}{2} - \$ \frac{1}{4}$ ?
8. At \$.48 for  $\frac{1}{2}$  dozen oranges, what will one  
orange cost?
9. Find the cost of 8 pears at \$.36 a dozen. 12  
pears.
10. How many six-cent tablets can I buy for 78  
cents?
11. What is the difference in the cost of 40 yd. of  
calico at 5 ct. a yard and 60 yd. of muslin at 8 ct. a  
yard?
12. Nell bought 3 lemons @ \$.04 each, 4 oranges  
@ \$.03 each, and had \$.26 left. How much had she  
at first?
13. A baker made 48 cakes. He sold  $\frac{1}{4}$  and gave  
away  $\frac{1}{2}$ . How many had he left?
14. Divide 45 marbles among 4 boys; how many  
for each, and how many left?

**Lesson 38.—Sight Work.**

1. If one parasol has 7 ribs, how many ribs will 12 parasols have ?
2. How many years in 84 months ?
3. If I have a quarter and 3 ct., and you have one-fourth as much as I, how much have you ?
4. If \$12 is  $\frac{1}{4}$  of the price of a book, what did the book cost ?
5. 5 half-dollars equal how many quarters ?
6. How many are  $2\frac{1}{2}$  dozen eggs ?
7. If 9 pencils cost \$.81, what costs 1 pencil ?
8. In a basket are 9 pears. If there are 9 seeds in each pear, how many seeds in all ?
9. When syrup is \$.09 a pint, how many pints can I buy for \$.81 ?
10. How many dimes in  $\$8\frac{1}{2}$  ?
11. At 7 ct. each, how many tablets can I buy for 84 cents ?
12. John had eighty-four apples; how many dozen did he have ?
13. If 2 dozen oranges cost \$.48, what is that apiece ?
14.  $12 + 8 + 6 + 9 + 4 + 5 + 3 + 2 = ?$
15.  $8 + 9 + 10 + 6 + 5 + 6 + 4 + 3 = ?$
16.  $3 \times 3 \times 3 \times 3 = ?$      $2 \times 2 \times 2 \times 2 \times 2 \times 2 = ?$
17. Product 12    11    15    8    11    12    11    8    9  

$$\underline{6} \quad \underline{7} \quad \underline{4} \quad \underline{9} \quad \underline{4} \quad \underline{5} \quad \underline{5} \quad \underline{7} \quad \underline{5}$$

### Lesson 39.

1. James has 12 ct., Tom twice as many, and Will four times as many. How many have all?
2. If you had 84 marbles and gave away  $\frac{1}{4}$  of them, how many would you have left?
3. In an orchard are 4 rows of peach trees and 3 rows of pear trees. If there are 12 trees in each row, how many trees in all?
4. A man paid \$252 for chairs at \$7 each. How many chairs did he buy?
5. Tom bought a drum for \$.65. What must he sell it for to gain \$.20?
6. Mrs. Johnston had \$30. She used \$6 to pay for a hat. The rest she gave for 8 yd. of velvet. How much was the velvet a yard?
7. At \$.84 a dozen, what cost 9 lemons?
8. If 9 bbl. of flour are worth \$81, what are 6 bbl. worth? 5 bbl.? 7 bbl.?
9. Add \$3.25 (10) \$2.16 (11) \$9.84 (12) \$ 1.87  

7.16	7.14	3.06	17.63
4.32	9.72	7.05	19.26
8.64	7.56	4.30	18.42
<u>3.21</u>	<u>3.10</u>	<u>3.25</u>	<u>18.92</u>
13. Product \$12.50    \$13.50    \$95.06    \$13.05  

8	9	7	6
<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
14. Count from 3 to 83 and back by 5's.

**Lesson 40.**

1. John had \$2 in three boxes. One box had \$.65; another box had \$.50. How much money in the third box?
2. From 70 take  $\frac{1}{3}$  of 81.
3. What is the cost of four hats at \$84 a dozen?
4. Mr. R. bought a horse for \$84 and paid  $\frac{1}{4}$  of the price down. How much does he still owe?
5. If a merchant sells 21 yards of silk for a dress, how many yards of silk in the whole piece if he can sell 4 dresses from it?
6. John had 84 marbles; he divided them equally among 3 boys. How many for each boy?
7. James, May, and Will each have 35 cents, and Kate  $\frac{1}{2}$  as much as all the others together. How much money has Kate?
8. Mary had \$.42, John  $\frac{1}{2}$  as many, Will  $\frac{1}{2}$  as many; how many cents had all?
9. I have a quarter of a dollar and two dimes, and you have  $\frac{1}{2}$  as much as I. How much have you? How much have we together?
10. Add 1 eagle, 1 dollar, 1 half-dollar, 1 quarter-dollar, 1 dime, 1 half-dime, 1 cent.
11. A baker had 30 pies on one shelf and  $14\frac{1}{2}$  on another shelf. How many on both shelves?
12. If I pay \$49.50 for nine weeks' board, what do I pay a week?

**Lesson 41.**

1. Add 4 dollars 8 cents, 16 dollars 9 cents, 15 dollars 16 cents, and forty dollars 4 ct. Write the answer in words.

2. From one hundred thirty-seven dollars nine cents, take eighty-four dollars seventy-eight cents.

3. How many dollars in 3642 cents, 9840 cents?

4. Divide by 10, \$62, \$45, \$37, \$18, \$15.

5. Add \$13.15 (6) \$27.32 (7) \$36.49 (8) \$137.15

12.17	1.05	2.70	.04
13.16	2.17	3.15	1.19
.85	.06	4.19	2.25
.09	.05	.06	.16

9. How many cents in 18 dollars 56 cents? In 14 dollars 8 cents? In 26 dollars 5 cents?

10. What is the product of \$13.15 multiplied by 9? by 6? by 8? (Problems.)

11. 4) \$38.24    5) \$36.90    6) \$12.48    7) \$35.07

12. Write in Roman 364, 756, 529, 196, 284, 327, 457.

13. CCVI., XCVIII., DCLXVI., CXVIII.

14.  $2 + 9$      $52 + 9$      $52 - 9$      $6 + 5$

15.  $12 + 9$      $62 + 9$      $42 - 9$      $16 + 5$

16.  $22 + 9$      $72 + 9$      $32 - 9$      $26 + 5$

17.  $32 + 9$      $72 - 9$      $22 - 9$      $36 + 5$

18.  $42 + 9$      $62 - 9$      $12 - 9$      $46 + 5$

**Lesson 42.—Sight Work.**

1. How many school weeks in 60 days?
2. How much sugar at \$.08 a pound can I buy for \$.72?
3. Emma is 9 years old; her father is five times as old. What is her father's age?
4. If you earn 12 cents in a week, how much do you earn in a month?
5. How many quarts of oil do we use in 12 weeks if we use 1 quart each day?
6. If half a yard of ribbon costs 15 ct., what will 3 yards cost?
7. How long will 7 pecks of oats last a horse if he eats  $\frac{1}{2}$  peck a day?
8. There are 40 children in a room;  $\frac{1}{4}$  are boys. How many girls are there?
9. At 7 ct. each, what cost 7 tablets?
10. Had \$.50 and spent \$.15; what is left?
11. If 4 doz. bananas cost 48 ct., what is the price per dozen?

12. $5 \times 9$	$90 \div 9$	$16 - 9$	$16 + 10$
13. $7 \times 8$	$81 \div 9$	$25 - 6$	$16 + 9$
14. $6 \times 6$	$72 \div 9$	$28 - 9$	$25 + 25$
15. $5 \times 7$	$84 \div 12$	$48 - 9$	$50 + 25$
16. Count from 11 to 83 and back by 8's.			
17. From 60      50      35      40      65      88      90			
Take <u>20</u> <u>25</u> <u>15</u> <u>9</u> <u>20</u> <u>18</u> <u>50</u>			

**Lesson 43.**

1. Mary had two dimes and six cents ; Tom had a quarter and \$.48. How much had they together ?
2. I had \$49. I spent  $\frac{1}{4}$  of it for a hat. What did the hat cost ?
3. If 8 pencils cost 48 ct., what is the cost of a half-dozen pencils ?
4. If eggs are 36 cents a dozen, what will 4 eggs cost ?
5. May's mother gave her a dime for sweeping the floor, and a nickel for wiping the dishes. If she had a quarter before, how much had she in all ?
6. I had 90 ct. I spent  $\frac{1}{5}$  of it for a drawing-book. How many cents were left ?
7. Subtract \$9.12 from \$20.00.
8. I bought 4 lb. of meat at \$.11 a pound, and gave the man  $\frac{1}{2}$ ; how much was the change ?
9. Find the cost of 2 hats at \$48 a dozen.
10. Bessie has 49 peaches. If she divides them equally among her 7 playmates, how many will each receive ?
11. Mary had 10 ct., Susie 8 ct., and Annie 7 cents. They put their money together and bought peanuts at 5 ct. a bag. How many bags did they get ?
12. Eddie had a 10-cent piece, 3 five-cent pieces, a 3-cent piece, and a 2-cent piece. He bought a kite for 10 ct., and 3 oranges at 5 cents each. How many cents had he left ?

**Lesson 44.**

1. A man sold some sheep for \$50, which was \$15 more than they cost. How much did he pay for them?
2. When bananas are \$.03 each and oranges are \$.04 each, what will it cost me to buy a half-dozen of each?
3. Thirty cents will buy how many 4-cent pencils, and how much will be left?
4. What is the cost of  $1\frac{1}{2}$  dozen lemons at 5 cents each?
5. If John ate half a dozen peaches, and May a quarter of a dozen, which ate the more? How many more?
6. A man had 90 bu. of apples and sold  $\frac{1}{3}$  of them. How many sold, and how many left?
7. A man had 22 sheep. He sold  $\frac{1}{2}$  of them at \$8 each. What did he get for them?
8. Mary had \$90 and spent \$18; how much was left?
9. In my room are 50 scholars; 23 are boys. How many are girls?
10. What will  $2\frac{1}{2}$  lb. of candy cost at 40 ct. a pound?

11.  $9)\underline{90}$      $7)\underline{84}$      $9)\underline{63}$      $9)\underline{81}$      $9)\underline{72}$      $8)\underline{56}$

12. From \$13.24    \$15.05    \$19.25    \$16.50  
Take    2.06    3.06    18.35    7.60

**Lesson 45.**

1. Ann had 90 cents. She bought 2 tablets at 8 cents each, and 15 cents' worth of paper. How much was left?
2. James had 7 dimes, 4 nickels, and 2 quarters. How much money had he?
3. If 7 oranges cost \$.35, what must I pay for four oranges?
4. What is the cost of  $2\frac{1}{2}$  dozen pencils at 3 cents each?
5. A boy who earns \$6 a month must work how many months to earn \$90?
6. If a loaf of bread costs 3 ct. and the baker sells it for \$.07, how much does he gain on a dozen loaves?
7. If you sell 40 oranges at 3 ct. apiece, how much will you receive for them?
8. How long will a barrel containing 240 apples last, if 8 apples are eaten each day?
9. If 3 wagons cost \$540, what will 1 wagon cost? 8 wagons?
10. If 7 cows cost \$294, what will 1 cow cost?
11. John bought 5 doves for \$2, and sold them at \$.50 apiece. Did he gain or lose, and how much?
12. I gave \$1.25 for gloves, \$.75 for ribbon, \$.48 for a handkerchief, \$4.50 for shoes, and \$.12 for pins. What was the cost of all?

**Lesson 46.**

1. Add \$13.50, \$4.08, \$7.25, \$16.48, \$17.63.
2.  $\$24 + \$13.03 + \$18.08 + \$9 + \$1 + \$0.08$ .
3.  $\$365.04$  minus  $\$37.08 = ?$
4. What is the difference between 64 dollars 1 cent, and 28 dollars 3 cents?
5. Find the product of 125 dollars 9 cents multiplied by 6.
6. Multiply \$326.08 by 3.
7. What is the quotient of \$32.16 divided by 8 cents? by 4 cents?
8. Give problems for the last two examples.
9. Write in Roman 128, 136, 594, 875.
10. CV., DV., CCCVI.
11.  $11 - 8$        $11 + 8$        $2 + 9$        $12 - 9$
12.  $21 - 8$        $21 + 8$        $12 + 9$        $22 - 9$
13.  $31 - 8$        $31 + 8$        $22 + 9$        $32 - 9$
14.  $41 - 8$        $41 + 8$        $32 + 9$        $42 - 9$
15.  $51 - 8$        $51 + 8$        $42 + 9$        $52 - 9$
16.  $61 - 8$        $61 + 8$        $52 + 9$        $62 - 9$
17.  $71 - 8$        $71 + 8$        $62 + 9$        $72 - 9$
18.  $81 - 8$        $81 + 8$
19. From  $\frac{1}{4}$  of 80 subtract  $\frac{1}{10}$  of 60.
20. To  $\frac{1}{4}$  of 72 add  $\frac{1}{5}$  of 81.
21. Multiply  $\frac{1}{4}$  of \$.72 by  $\frac{1}{8}$  of 64.
22. Divide  $\frac{1}{11}$  of 88 by  $\frac{1}{6}$  of 36.

**Lesson 47.—Sight Work.**

1. 12 horseshoes will supply how many horses ?
2. What four pieces of money equal a half-dollar ?  
A dollar ?
3. Fred had 4 dozen tops. He gave away 8.  
How many were left ?
4. If  $\frac{1}{2}$  lb. of tea costs 25 ct., what is the cost of  
a lb. ? 3 pounds ?
5. How many shoes do 8 teams of horses need ?
6. If I borrow \$5 and return the money in  
quarters, how many quarters do I return ?
7. At half a dollar each, how many books can  
be bought for 4 dollars ?
8. A man had 100 lemons ; he sold  $\frac{1}{4}$  of them.  
How many are left ?
9. How much is 8 dozen less 2 half-dozen ?
10. Name 5 ways in which a hundred-dollar bill  
can be changed.
11. If a term of school is 20 weeks, how many  
days in half a term ?
12. How many school weeks in 100 days ?
13. Tom sold 20 rabbits at half a dollar apiece.  
What did he get for them ?
14. A boy earns one half-dime a day ; what will  
he earn in 20 days ?
15. How many hours in 4 days ?
16. What will 2 dozen two-cent postage stamps  
cost me ?

**Lesson 48.**

1. If a horse costs \$125, and a cart costs \$40, what do both cost?
2. Charles had \$.50; he spent  $\frac{1}{2}$  of it and lost a dime. How much of his money was left?
3. A half-pound of butter costs \$.14. What is the cost of 4 pounds?
4. I had  $\$ \frac{1}{4} + \$ \frac{1}{2}$  and 3 dimes; what is  $\frac{1}{2}$  of it?
5. How many 5-cent tablets can I buy for 80 cents?
6. A farmer had 96 sheep. He sold 49 and bought 37. How many had he then?
7. A man bought a turkey weighing 9 lb. at \$.15 a pound. How much change will he have left from a five-dollar bill?
8. A lady gave 11 cents to each of her eight children. How much did she give to all?
9. Write in Roman 359, 478, 540, 690.
10. Write in figures CXVII., LXXII., DCCCVII., DVI.
11. Count from 7 to 97 and back by 6's.
12. Change \$35.50, \$25.60, \$24.08, \$1.09, \$3.16 to cents.
13. Change 450 cents, 380 cents, 1490 cents, 2463 cents, 1305 cents, 2598 cents to dollars.
14. Add the numbers in each of the last 2 examples, and subtract the less sum from the greater.
15. 8 times 6; 8; 9; 12; 11; 4; 5; 3; 2.

**Lesson 49.**

1. Bought a horse for \$150, a cart for \$112, and a harness for \$13. What did all cost me?
2. A boy who had 85 cents and a dollar, spent \$1.25. How much money had he left?
3. I bought 23 yd. of silk at \$4 a yard. How much did it cost me?
4. What is the difference between  $\frac{1}{2}$  of 144 and  $\frac{1}{4}$  of 56?
5. If a man earns \$3 a day, what will he earn in 5 weeks?
6. I gave \$4.50 for a pair of skates and a sled. The skates cost  $\frac{1}{3}$  of the money. What did the sled cost?
7. At 4 ct. a pint, how many pints of syrup can I buy for \$.92?
8. If you buy 6 oranges at \$.04 apiece and 3 lemons at \$.05 apiece and have \$.29 left, how much had you at first?
9. A man had \$94.13 in the bank, and drew out \$12.16. How much did he have left?
10. Bought a cow for \$92 and sold her for \$78. How much did I lose?
11. If 3 lb. of rice cost 24 ct., what will 12 lb. cost?
12. Charlie gets \$6 a month for helping his father, and Emma gets  $\frac{1}{2}$  as much for helping her mother. What do both earn in a year?

**Lesson 50.**

1. John catches 56 fish, Frank catches  $\frac{1}{2}$  as many, and Ned catches 49. What did all catch?

2. Frank had 70 cents, and his mother gave him enough to make one dollar. How much did his mother give him?

3. Lemons are 3 cents each; find the cost of  $3\frac{1}{2}$  dozen.

4. If a man can walk 9 miles in one day, in how many days can he walk 108 miles?

5. In a garden were 27 roses, 43 lilies, and 33 pansies. How many flowers in all?

6. A farmer had 124 chickens. He sold  $\frac{1}{4}$  of them and 15 died. How many had he left?

7. How much fringe will I need for a square table that is 27 inches on a side? (Illustrate.)

8. I bought a horse for \$100. I paid  $\frac{1}{4}$  of the price down. How long will it take to pay the rest at \$5 a month?

$$9. \frac{1}{2} \text{ of } 60 \text{ less } \frac{1}{2} \text{ of } 27 = ?$$

$$10. \frac{1}{2} \text{ of } 96 + \frac{1}{2} \text{ of } 81 = ?$$

$$11. 18 \times 3 + ? = 100 \quad 100 \div 50 + ? = 75$$

$$12. 94 \div 2 + ? = 50 \quad 100 \div 25 - ? = 1$$

$$13. 7 \times 9 \quad 100 \div 4 \quad 19 + 8 \quad 19 - 8$$

$$14. 20 \times 5 \quad 96 \div 12 \quad 29 + 8 \quad 29 - 8$$

$$15. 18 \times 4 \quad 72 \div 12 \quad 39 + 8 \quad 39 - 8$$

$$16. 16 \times 5 \quad 88 \div 4 \quad 49 + 8 \quad 49 - 8$$

$$17. 14 \times 5 \quad 76 \div 4 \quad 59 + 8 \quad 59 - 8$$

**Lesson 51.**

1. I bought  $\frac{1}{2}$  doz. eggs at \$.28 a doz., 5 lb. sugar at \$.07 a lb., and a gal. of oil at \$.12 a gal. I gave the man \$1.00. How much change did I get?

2. A farmer had 100 acres of land. He sold  $\frac{1}{2}$  at one time, and  $\frac{1}{4}$  at another time. How many acres had he left?

3. I bought 3 dozen bananas at \$.35 a dozen, and 1 pineapple at \$3 a dozen. What did all the fruit cost me?

4. When milk is \$.05 a qt., how many quart tickets can I get for \$1.00?

5. A man had 4 baskets with 24 apples in each. Find cost at \$.05 a dozen.

6. Will rode forty miles on his bicycle, and Harry rode twenty miles more than that. How far did both ride?

7. From \$100 was spent \$25 $\frac{1}{2}$  for a hat-rack, \$15 $\frac{1}{2}$  for a chair, and \$18 for a couch. How much was left?

8. Tom ate 5 apples, John ate 4 times as many, and Will sold 5 times as many as John ate. How many apples did Will sell?

9. A man had a lot 33 ft. wide and 109 ft. long. How many feet of fence will be needed to go around the lot? (Illustrate.)

10. Multiply  $7 \times 12$  by  $\frac{1}{2}$  of 96.

11. 8 dimes will buy how many 5-cent oranges?

**Lesson 52.—Test Work.**

1. Frank had 90 ct. He spent 48 ct., then gave John  $\frac{1}{2}$  of what was left. How much did John get?
2. If 6 dolls cost 36 ct., how much will 17 cost?
3. To  $15 \times 4$  add  $\frac{1}{2}$  of 48.
4. If a half-dozen oranges cost 18 ct., how much will 4 dozen cost?
5. Had \$60. Spent  $\frac{1}{2}$  for a dress, and \$15 for a cloak. How much was left?
6. Bought 16 books for 3 ct. apiece; sold them for 6 cents apiece. How much did I make?
7. What will  $5\frac{1}{2}$  dozen pencils cost at 5 cents apiece?
8. Bought 7 balls for 5 cents apiece, 9 tops for 3 cents apiece, and had a quarter left. How much had I at first?
9. Add  $\frac{1}{2}$  of LXX. and 3 times XXIX.
10. A boy had a half-dollar. He spent 2 dimes, a quarter, and 4 cents. How much was left?
11. Bought  $3\frac{1}{2}$  doz. balls for 9 ct. apiece; how much change did I get from \$5?
12. A lady bought 7 yd. of cloth @ \$.54 a yd. She paid  $\frac{1}{2}$  the money. How much did she owe?
13. Paid \$4.50 for a hat and 3 times as much for a cloak. What did both cost?
14. Find  $\frac{1}{2}$  of 72, and take it from  $14 \times 5$ .
15. How many nickels in 2 dollars?

**Lesson 53.—Test Work.**

1. Add 32, 17, 25, 10, 6.
2.  $7 \times 8 - (6 \times 6) = ?$
3.  $8 \times 8 = ?$     $6 \times 12 = ?$     $7 \times 9 + 7 = ?$
4. Take 12 from  $\frac{1}{4}$  of 60.
5. I have in my purse 3 quarters, a dime, a five-cent piece, and 3 cents. How much in all?
6. Mr. Smith had 96 sheep. He sold 47 of them, and 13 died. How many had he then?
7. Make a problem in which you would use  $5 \times \$40$ .
8. Add \$4.38, \$.17, and \$8.
9. How much pork can I get for \$.56 if 9 pounds cost \$.72?
10. If 4 dresses of 15 yards each are cut from a piece of cloth containing 75 yards, how many yards are left?
11. Write CIX. in figures.
12.  $45 + 30 - (8 \times 7) = ?$     $8 \times 9 = 6 \times ?$
13.  $\frac{1}{8}$  of 64 =  $\frac{1}{4}$  of ?
14. From 68 take  $4 \times 11$ .    $6 \times ? = 4 \times 12$ ?
15. Write in figures seven hundred nine.
16. 4 dozen less  $2\frac{1}{2}$  dozen are how many?

## CHAPTER IV.

### Lesson 1.—Sight Work.

[NOTE.—See suggestions to teachers.]

1. How many horns have 10 yoke of oxen?
2. How many cents in \$6?
3. What will be the cost of 5 oranges at 60 cents a dozen?
4. If one book costs 12 cents, how many books can you buy for 24 cents?
5. If 1 pound of butter costs  $\$ \frac{1}{2}$ , what will 3 pounds cost?
6. If 2 oranges cost \$.05, what will 6 oranges cost? 8 oranges?
7. If coal is \$4 a ton, how many tons can I get for \$24?
8. What 4 equal numbers make 84?
9. How many faces have 9 cubes?
10. If I had 28 quarters, how many dollars had I?
11. At \$8 each, how many muffs can I buy for \$32?
12. What is the cost of 16 apples at \$.02 each?
13. When the hour-hand of the clock is at IV., and the minute-hand is at XII., what time is it?

**Lesson 2.**

1. Paid \$.02, \$.25, \$.16, and \$.10 for papers, pens, etc. Find the cost.
  2. Bought a horse for \$136. Sold it for \$105 $\frac{1}{2}$ . Did I gain or lose, and how much?
  3. What must be paid for 7 dozen eggs at \$.02 apiece?
  4. A ton of coal costs \$6.90. Find the cost of 8 tons;  $\frac{1}{2}$  of a ton.
  5. How many feet around a room that is 12 ft. wide and 15 ft. long? (Illustrate.)
  6. Bought 6 dozen oranges at \$.30 a dozen. Sold them for 4 ct. each. Find the gain.
  7. Bought a barrel of sugar weighing 192 lb. at \$.04 a lb. What change should I receive from an eagle?
  8. At \$.25 a dozen, what will 72 buttons cost?
  9. A piece of cloth 96 yards long was cut into 6 equal pieces. How much in each piece? What was the cost of one piece at \$.07 a yard?
  10. Add—
- |              |               |              |               |
|--------------|---------------|--------------|---------------|
| \$13.46      | (11) \$243.25 | (12) \$18.46 | (13) \$350.00 |
| 14.08        | 14.06         | 124.17       | 1.12          |
| 19.72        | .43           | 1.09         | .40           |
| <u>15.84</u> | <u>2.40</u>   | <u>.14</u>   | <u>1.09</u>   |
- 
14. Multiply \$3.14    \$5.84    \$7.33    \$8.72    \$152.19
- |                   |                   |                   |                   |
|-------------------|-------------------|-------------------|-------------------|
| 6                 | 4                 | 9                 | 4                 |
| <u>          </u> | <u>          </u> | <u>          </u> | <u>          </u> |

**Lesson 3.****MONEY TABLE.**

Ten mills make one cent (ct.).

Ten cents make one dime.

Ten dimes make one dollar (\$).

10 dollars make one eagle.

(Copy and learn this table.)

1. Add 4 dimes, 4 dollars, and 4 cents.
2. Add an eagle, 6 dimes, and 3 cents.
3. From an eagle take 2 dollars and 2 cents.
4. How many cents in an eagle ? A dollar ?
5. How many cents in an eagle, a dollar, a dime, and a cent ?
6. How many dimes in an eagle ?
7. What are the gold coins of this country ? The silver coins ? The nickel coins ? The bronze coins ?
8. Make change for an eagle in three ways.
9. Make change for a double eagle in three ways.
10. Add 4 dollars, 3 dimes, 2 cents ; 6 dollars, 8 dimes, 9 cents ; 5 dollars, 4 dimes, 1 cent ; 20 dollars, 3 dimes, 7 cents.
11. What is the quotient of \$14.84 divided by 7 ; by 4 ; by 7 cents ; by 4 cents ? (Problems.)
12. From one hundred fifty dollars three cents, take twenty-seven dollars nine cents.
13.  $\frac{1}{4}$  of 140 less  $\frac{1}{5}$  of 120 = ?
14.  $\frac{1}{12}$  of 144 minus ? = 6.

**Lesson 4.**

1. John spent \$1.50, Willie a quarter, Mary 3 dimes, Edward 4 nickels. How much money in all?
2. What is the difference between an eagle and 32 cents?
3. If 3 books cost \$.48, what will 1 book cost? 5 books?
4. At \$.09 a pound, how many pounds of beef can be bought for \$68.40?
5. Katie has a quarter, Mary 5 dimes, Julia 4 nickels, Anna 10 two-cent pieces. How much have all?
6. From a double eagle was spent \$4.78 for paper, and \$3.96 for ink. How much change was received?
7. Bought 16 rolls of paper at \$.25 a roll, 13 yd. of border at \$.75 per yard. What was the cost?
8. Paid \$1.20 for five dozen eggs. Find the cost of one egg.
9. If a pound of butter costs the grocer \$.20, and he sells it for \$.26, what does he make on 32 pounds?
10. A boy earned \$4.20 a week. What will he earn in 10 days?
11. I bought 19 yd. of silk at \$1.25 a yd., 13 yd. velvet at \$1.50 a yd. How much change should I receive from five eagles?
12. From \$369.40    \$46.34    \$36.95    \$365.19  
Take    11.19    28.69    29.38    19.08

**Lesson 5.**

1. Add \$9.18, \$4.50, \$25.10, \$6.24.
2. Add \$16.25, \$17.01, \$27.15, \$41.00, \$22.15.
3.  $\$2.75 + \$11.07 + \$5 + \$9.09 + \$24.50 + \$6.95 + \$13.16 + \$15.12 + \$21.25 + \$30.06 + \$8.81 + \$2.50 = ?$
4.  $\frac{1}{2}$  of 150       $\frac{1}{2}$  of 168       $\frac{1}{2}$  of 74 (<sup>Prob-</sup><sub>lem</sub>)
5.  $\frac{1}{3}$  of 240 (<sup>Problem</sup>)       $\frac{1}{3}$  of 155       $\frac{1}{3}$  of 189
6.  $\frac{1}{4}$  of 164       $\frac{1}{4}$  of 360       $\frac{1}{4}$  of 484
7.  $\frac{1}{4}$  of 116       $\frac{1}{4}$  of 108 (<sup>Problem</sup>)       $\frac{1}{4}$  of 156
8.  $85 \times 9$  (<sup>Problem</sup>)       $97 \times 8$        $46 \times 7$
9.  $121 \times 9$        $210 \times 6$        $324 \times 9$
10.  $67 \times 15$        $34 \times 19$        $50 \times 18$  (<sup>Prob-</sup><sub>lem</sub>)
11.  $82 \times 24$        $15 \times 31$  (<sup>Prob-</sup><sub>lem</sub>)       $64 \times 45$
12. Add the odd numbers to 50.
13. Add the even numbers to 50.
14.  $84 \div 6$        $100 \div 5$  (<sup>Problem</sup>)       $124 \div 4$
15.  $232 \div 8$        $144 \div 6$        $144 \div 9$  (<sup>Prob-</sup><sub>lem</sub>)
16.  $306 \div 9$        $808 \div 8$        $742 \div 7$  (<sup>Prob-</sup><sub>lem</sub>)
17.  $828 \div 9$        $585 \div 9$        $999 \div 9$
18.  $110 - 67$        $215 - 191$        $736 - 49$
19.  $115 - 80$        $172 - 163$        $854 - 362$
20.  $138 - 9$        $220 - 40$        $591 - 430$
21.  $98 - 9$        $300 - 11$        $600 - 550$
22. Count from 7 to 95 and back by 8's.
23. Add 8 to 11; 21; 31; 41; 51; 61; 71; 81.
24. Take 8 from 11; 21; 31; 41; 51; 61; 71; 81.
25. Write in figures CCCXVIII., DC., DCCCXVI.
26. Write in Roman 567, 989, 756, 892.

**Lesson 6.**

1. Draw a circle and cut it into 2 equal parts.  
What is each part called?
2. How many halves in a whole thing?
3. Draw another circle and cut it into 3 equal parts.  
What is one of the parts called?  
2 of the parts?  
3 of the parts?  
How many thirds in a whole thing?
4. Write one half, two halves, one third, two thirds, three thirds.
5. If you cut an apple into 4 equal pieces, what part of the apple is one piece?  
2 pieces?  
3 pieces?  
4 pieces?
6. How do you get  $\frac{1}{2}$  of an apple?  
 $\frac{2}{3}$  of an apple?
7. Make 12 dots.  
How many are  $\frac{1}{2}$  of 12 dots?  
 $\frac{2}{3}$  of 12 dots?  
 $\frac{3}{4}$  of 12 dots?
8. How do you get  $\frac{1}{3}$  of a number?  
 $\frac{2}{3}$ ?  
 $\frac{3}{4}$ ?
9. How do you get  $\frac{1}{4}$  of a number?  
 $\frac{2}{4}$ ?  
 $\frac{3}{4}$ ?
10. What is  $\frac{1}{2}$  of 6 apples?  
 $\frac{2}{3}$  of 6 apples?
11. How many cents in  $\frac{1}{2}$  of 10 cents?  
 $\frac{2}{3}$  of 10 cents?  
 $\frac{3}{4}$  of 10 cents?
12. How much is  $\frac{1}{2}$  of 8?  
 $\frac{2}{3}$  of 8?
13. How much is  $\frac{1}{2}$  of 12?  
 $\frac{2}{3}$  of 12?
14. How much is  $\frac{1}{2}$  of \$32.16?  
 $\frac{2}{3}$  of \$32.16?
15.  $\frac{1}{2}$  of 12 is 3;  
how much is  $\frac{2}{3}$  of 12?  
 $\frac{3}{4}$  of 12?  
 $\frac{4}{5}$  of 12?
16.  $\frac{1}{2}$  of 10 is 2;  
what is  $\frac{2}{3}$  of 10?  
 $\frac{3}{4}$  of 10?  
 $\frac{4}{5}$  of 10?

**Lesson 50.**

1. John catches 56 fish, Frank catches  $\frac{1}{2}$  as many, and Ned catches 49. What did all catch?

2. Frank had 70 cents, and his mother gave him enough to make one dollar. How much did his mother give him?

3. Lemons are 3 cents each; find the cost of  $3\frac{1}{2}$  dozen.

4. If a man can walk 9 miles in one day, in how many days can he walk 108 miles?

5. In a garden were 27 roses, 43 lilies, and 33 pansies. How many flowers in all?

6. A farmer had 124 chickens. He sold  $\frac{1}{4}$  of them and 15 died. How many had he left?

7. How much fringe will I need for a square table that is 27 inches on a side? (Illustrate.)

8. I bought a horse for \$100. I paid  $\frac{1}{4}$  of the price down. How long will it take to pay the rest at \$5 a month?

$$9. \frac{1}{3} \text{ of } 60 \text{ less } \frac{1}{2} \text{ of } 27 = ?$$

$$10. \frac{1}{12} \text{ of } 96 + \frac{1}{3} \text{ of } 81 = ?$$

$$11. 18 \times 3 + ? = 100 \quad 100 \div 50 + ? = 75$$

$$12. 94 \div 2 + ? = 50 \quad 100 \div 25 - ? = 1$$

$$13. 7 \times 9 \quad 100 \div 4 \quad 19 + 8 \quad 19 - 8$$

$$14. 20 \times 5 \quad 96 \div 12 \quad 29 + 8 \quad 29 - 8$$

$$15. 18 \times 4 \quad 72 \div 12 \quad 39 + 8 \quad 39 - 8$$

$$16. 16 \times 5 \quad 88 \div 4 \quad 49 + 8 \quad 49 - 8$$

$$17. 14 \times 5 \quad 76 \div 4 \quad 59 + 8 \quad 59 - 8$$

**Lesson 51.**

1. I bought  $\frac{1}{2}$  doz. eggs at \$.28 a doz., 5 lb. sugar at \$.07 a lb., and a gal. of oil at \$.12 a gal. I gave the man \$1.00. How much change did I get?
2. A farmer had 100 acres of land. He sold  $\frac{1}{4}$  at one time, and  $\frac{1}{2}$  at another time. How many acres had he left?
3. I bought 3 dozen bananas at \$.35 a dozen, and 1 pineapple at \$3 a dozen. What did all the fruit cost me?
4. When milk is \$.05 a qt., how many quart tickets can I get for \$1.00?
5. A man had 4 baskets with 24 apples in each. Find cost at \$.05 a dozen.
6. Will rode forty miles on his bicycle, and Harry rode twenty miles more than that. How far did both ride?
7. From \$100 was spent \$25 $\frac{1}{2}$  for a hat-rack, \$15 $\frac{1}{2}$  for a chair, and \$18 for a couch. How much was left?
8. Tom ate 5 apples, John ate 4 times as many, and Will sold 5 times as many as John ate. How many apples did Will sell?
9. A man had a lot 33 ft. wide and 109 ft. long. How many feet of fence will be needed to go around the lot? (Illustrate.)
10. Multiply  $7 \times 12$  by  $\frac{1}{2}$  of 96.
11. 8 dimes will buy how many 5-cent oranges?

**Lesson 9.—Sight Work.**

1. If a man earns \$2 a day for 2 weeks, how much will he earn in all?
2. How many tumblers at 9 ct. each can I buy for \$.36?
3. Eggs are worth 30 cents a dozen. Find the cost of  $\frac{1}{2}$  of a dozen.
4. When 3 pencils cost 9 cents, what will 8 pencils cost?
5. How many baskets would 5 doz. lemons fill if you put 10 lemons in each basket?
6. James had 30 ct. and spent  $\frac{1}{3}$  of it. How much had he left?
7. How far around a room that is 15 ft. square?
8. Into how many piles can I separate 108 oranges and put 9 in each pile?
9. What is the cost of 4 books at  $\$ \frac{1}{4}$  each.
10. How much will a man earn in 3 weeks if he gets \$2 a day?
11.  $9 \times 5$        $6 \times 4$        $4 \times 8$        $\frac{1}{2}$  of 81
12.  $6 \times 8$        $8 \times 6$        $6 \times 6$        $\frac{1}{2}$  of 144
13.  $11 \times 4$        $11 \times 11$        $10 \times 9$        $\frac{1}{2}$  of 72
14.  $9 \times 12$        $12 \times 10$        $5 \times 8$        $\frac{1}{2}$  of 63
15. What is  $\frac{1}{3}$  of 12?  $\frac{2}{3}$  of 12?  $\frac{3}{4}$  of 12?
16. How much is  $\frac{1}{4}$  of a dollar?  $\frac{1}{2}$  of a dollar?  
 $\frac{2}{3}$  of a dollar?
17. How much is  $\frac{1}{3}$  of a dozen?  $\frac{2}{3}$  of a dozen?
18. How much is  $\frac{1}{2}$  of 60?  $\frac{2}{3}$ ?  $\frac{3}{4}$ ?  $\frac{4}{5}$ ?

**Lesson 10.**

1. I have in my purse 4 dimes, a two-cent piece, 7 cents, and a half-dollar; how many cents in all? How many 11-cent tablets could I buy with it?
2. Had \$1.67. Spent \$.61, and lost  $\frac{1}{2}$  of the remainder. How much was lost?
3. A man bought a horse for \$155.75, and sold it for \$219. What did he gain?
4. How much is  $\frac{4}{5}$  of \$8.16?
5. Divide \$2.80 among 5 poor children. How much will each get?
6. What is the cost of  $\frac{1}{2}$  dozen books at 5 ct. each, and  $\frac{4}{5}$  doz. pencils at 2 ct. each?
7. How much more will 2 dozen pencils, at 3 cents each, cost than 4 dozen slate-pencils at a cent apiece?
8. How many cents in  $\frac{1}{2}$  of an eagle?
9. If 8 tons of coal cost \$32.84, what will 1 ton cost?  $\frac{1}{2}$  ton?  $\frac{1}{4}$  ton?
10.  $\frac{2}{3}$  of 72                     $\frac{4}{5}$  of 64                     $\frac{4}{5}$  of 120
11.  $\frac{2}{3}$  of 125                     $\frac{4}{5}$  of 240                     $\frac{4}{5}$  of 168
12.  $\frac{2}{3}$  of 180                     $\frac{4}{5}$  of 147                     $\frac{3}{4}$  of 132
13.  $\frac{5}{12}$  of 108                     $\frac{4}{15}$  of 70                     $\frac{3}{8}$  of 144
14.  $\frac{11}{12}$  of 156                     $\frac{5}{6}$  of 72                     $\frac{4}{5}$  of 81
15.  $\frac{5}{6}$  of 108                     $\frac{2}{3}$  of 240                     $\frac{5}{12}$  of 143
16. Add  $\frac{2}{3}$  of 273 and  $\frac{4}{5}$  of 404.
17. Add  $\frac{5}{12}$  of 120 and  $\frac{2}{11}$  of 363.
18.  $\frac{2}{3}$  of 640 +  $\frac{4}{5}$  of 350 =

**Lesson 11.****LIQUID MEASURE.**

4 gills (gi.) make 1 pint (pt.).

2 pints make 1 quart (qt.).

4 quarts make 1 gallon (gal.).

1. In 3 pints how many gills ?
2. Change 6 pints to gills.
3. Find how many gills in 16 pt.
4. Change 23 pt. to gills.
5. In 6 quarts how many pt. ?
6. In 14 quarts how many pt. ?
7. Change 28 quarts to pints.
8. In 39 quarts how many pints ?
9. How many pt. in 50 quarts ?
10. How many quarts in 4 gallons ? in 7 gal. ? in  $8\frac{1}{2}$  gal. ? in  $8\frac{3}{4}$  gal. ?
11. Change 15 gallons to quarts.
12. Change 23 gal. to quarts.
13. How many gills in a gallon ?
14. How many pints in a gallon ?
15. In 2 gallons how many gills ?
16. Change 8 gal. to pints.
17. In  $4\frac{1}{2}$  gal. how many gills ?
18. How many gills in 6 qt. ?
19. In 16 gills how many pints ?
20. In 40 gills how many pints ?
21. In 120 gills how many pints ?

**Lesson 12.**

1. 50 pints will fill how many quart jars ?
2. 6 gal. 5 qt. are how many quarts ?
3. 9 qt. 3 pt. are how many pints ?
4. 8 pints 3 gills are how many gills ?
5. Change 60 qt. to gallons.
6. Change 320 pints to quarts.
7. At 5 cents a quart, what will 5 gal. of vinegar cost ?
8. A grocer sold 9 gal. of milk at 3 cents a pint ; what did he get for it ?
9. A lady paid 60 cents a gallon for molasses. How much did she pay for a quart ?
10. At 5 cents a gill, what will 6 pints of jelly bring ?
11. When syrup is 80 ct. a gallon, what will a pint cost ?
12. A gallon of cream costs 64 cents ; what is a gill worth ?
13. Sold 2 gallons of oysters for 35 ct. a quart ; what did they bring ?
14. If a gallon of oil costs 32 ct., what will 5 quarts cost ?
15. A grocer sold 48 quarts of vinegar at 25 ct. a gal. ; what did it bring him ?
16. A lady put  $4\frac{1}{2}$  gallons of jelly into pint cups ; how many cups did she have ?
17. 36 quarts of berries were put into pint cans ; how many cans were needed ?

**Lesson 13.—Sight Work.**

1. How many quarts in 8 pints ?
2. How many gallons in 8 quarts ?
3. Reduce 4 qt. to pints.
4. What cost 24 pt. of oil at 12 ct. a quart ?
5. A milkman had 5 gal. of milk in a can, and sold 18 qt. How many pints were left ?
6. How many gills in 2 pints ?
7. How many quarts in 32 pints ?
8. Mary has  $\frac{1}{2}$  of 16 gallons of syrup ; how many quarts has she ?
9. How many quarts are 28 pints ?
10. How many pints will it take to fill 3 two-quart measures ?
11. If from a 6-gallon can of oil 5 qt. leaked out, how many quarts remain ?
12. A boy bought 2 gal. of vinegar and spilled  $\frac{1}{4}$  of it. How many quarts were left ?
13. When vinegar is \$.20 a gal., what will  $\frac{1}{2}$  of a gal. cost ?
14. How many gills in 9 pt. ?
15. How many quarts in  $\frac{1}{4}$  gallon ?
16. How many times can I fill a quart measure from 5 gallons ?
17. A quart of oysters costs \$.60. Find the cost of 1 pint.
18. If you have  $\$ \frac{1}{4}$  and spend one-fourth of a dollar, how many cents have you left ?

**Lesson 14.**

1. How many gills in 3 gallons ?
2. 264 qt. are how many gal. ?
3. If Nell bought 32 gills of milk, how many gallons did she buy ?
4. In 108 pt. how many quarts ?
5. Change 360 quarts to gallons.
6. Reduce 144 gills to quarts.
7. 320 pt. of water will fill how many gallon jugs ?
8. From a gallon of molasses 3 gills were used at one time and 1 pt. at another. How many gills were left ?
9. What must be paid for 9 gal. of oil at \$.13 a quart ?
10. How many pints in 1 gal. 2 qt. and 1 pt. ?
11. Find the cost of  $2\frac{1}{2}$  gallons vinegar at 6 ct. a pint.
12. 16 qt. are how many gills ?
13. How many pints in 6 gallons ?
14. How many gills in 4 gal. 2 qt. and 1 pint ?
15.  $\$5\frac{1}{2} + \$12\frac{1}{4} + \$9\frac{1}{2} + \$18\frac{1}{4} + \$9 = ?$
16.  $\$6.03 + \$9\frac{1}{4} + \$0.75 + \$2\frac{1}{4} + \$29.16 + \$5.55 = ?$
17.  $\$28.02 + \$12.75 + \$63.01 + \$7.15 + \$28\frac{1}{4}.$
18. Write in Roman six hundred forty-one.
19. Write in Roman 347, 896, 234.
20. The sum of two numbers is 70 ; one of them is 27. Find the other.
21. From 33 take  $\frac{1}{4}$  of 28.

**Lesson 15.**

1. From a cask holding 20 gal. of molasses, 8 qt. leak out. Find the value of what remained at \$.50 a gallon.
2. Find the cost of 1 gal., 1 qt., 1 pt., 1 gill of milk at 3 ct. a gill.
3. How many gills will fill a quart can? A gallon measure?
4. Paid 32 ct. for 1 gal. of lemonade. What is the cost of 1 quart?
5. When vinegar is \$.05 a quart, how many gallons can you get for \$1.00?
6. If a grocer paid \$10.80 for 9 gal. of oysters, how much did he pay for a pint?
7. From 63 gal. of oil 60 pt. were sold; how many pints were left?
8. I bought 3 gal. of milk this morning. How many pints did I buy?
9. How many gills in  $2\frac{1}{2}$  gal.?
10. Add \$15, \$.37 $\frac{1}{2}$ , \$340.50, \$1050, \$.62 $\frac{1}{2}$ .
11. Write in figures seven thousand six hundred four.
12. How many 9's in 720?
13.  $\frac{1}{2}$  of 520 +  $\frac{1}{2}$  of 390 - (144 ÷ 12) = ?
14. Find the sum and difference of 390 and 389.
15. 8 is  $\frac{1}{2}$  of what number?
16. What is the sum of \$8.29, \$32, \$3.79, \$48, \$18.09, \$.75, \$365?

**Lesson 16.**

1. I bought a cow for \$35.50 and a horse for \$165, and paid \$120 down. How much do I still owe?
2. Ned earns \$30 a month and spends \$20. What does he save in a year?
3. I bought 19 yd. silk at \$1 $\frac{1}{2}$  a yd. How much change did I receive from a \$50 bill?
4. 15 buttons on one card, and 27 on another, were sold for 20 ct. a dozen. How much did I get for them?
5. Bought a house for \$2000 and spent \$300 for repairs, and sold it for \$3000. Did I gain or lose, and how much?
6. A man paid \$200 for lambs at \$5 apiece. How many did he buy?
7. If I take 3 gills from a gallon, what will remain?
8. Find the cost of 15 gal. of milk at \$.05 a quart.
9. Eddie was born in 1873. How old is he now?
10. How much must be paid for 96 qt. of milk at 20 ct. a gal.?
11. Product   \$36.25      \$18.75      \$45.96      \$36.21  
              12          16          15          11
12. 5) 3625      6) 4824      12) 4932      10) 36950

**Lesson 17.**

- |            |            |           |               |
|------------|------------|-----------|---------------|
| 1. Add 639 | (2) 1050   | (3) 126   | (4) \$115.85  |
| 874        | 394        | 149       | 327.15        |
| 596        | 769        | 1260      | 495.27        |
| 421        | 564        | 1004      | 160.03        |
| 397        | 285        | 986       | 598.09        |
| <u>269</u> | <u>784</u> | <u>24</u> | <u>784.06</u> |
- 
- |                    |                 |                 |
|--------------------|-----------------|-----------------|
| 5. $354 \times 24$ | $436 \times 84$ | $748 \times 12$ |
| 6. $785 \times 16$ | $125 \times 65$ | $354 \times 14$ |
| 7. $297 \times 48$ | $176 \times 49$ | $892 \times 16$ |
| 8. $285 \times 61$ | $800 \times 10$ | $358 \times 88$ |
- 
- |                     |              |               |
|---------------------|--------------|---------------|
| 9. $5000 - 2975$    | $3652 - 156$ | $2875 - 1560$ |
| 10. $8000 - 7521$   | $8596 - 789$ | $1590 - 1440$ |
| 11. $20000 - 16840$ | $1469 - 324$ | $1750 - 1749$ |
- 
- |  |  |  |
|--|--|--|
| 12. $\$2\frac{1}{4} + \$1\frac{1}{4} + \$1.38 + \$\frac{1}{2} + \$.45 = ?$ |  |  |
| 13. Write in Roman 95, 844, 769, 498.                                      |  |  |
- 
- |                            |                        |                        |
|----------------------------|------------------------|------------------------|
| 14. $\frac{1}{3}$ of 315 = | $\frac{1}{3}$ of 265 = | $\frac{1}{3}$ of 100 = |
| 15. $\frac{1}{3}$ of 205 = | $\frac{1}{3}$ of 135 = | $\frac{1}{3}$ of 505 = |
| 16. $\frac{1}{3}$ of 132 = | $\frac{1}{3}$ of 186 = | $\frac{1}{3}$ of 72 =  |
| 17. $\frac{1}{3}$ of 144 = | $\frac{1}{3}$ of 156 = | $\frac{1}{3}$ of 174 = |
| 18. $\frac{1}{3}$ of 434 = | $\frac{1}{3}$ of 147 = | $\frac{1}{3}$ of 210 = |
| 19. $\frac{1}{3}$ of 84 =  | $\frac{1}{3}$ of 105 = | $\frac{1}{3}$ of 231 = |
- 
- |                    |                 |                |
|--------------------|-----------------|----------------|
| 20. $1210 \div 10$ | $1122 \div 11$  | $1023 \div 11$ |
| 21. $1344 \div 12$ | $12720 \div 12$ | $696 \div 12$  |
| 22. $1248 \div 12$ | $4920 \div 12$  | $1500 \div 12$ |
| 23. $372 \div 12$  | $2436 \div 12$  | $2880 \div 12$ |

**Lesson 18.**

1. In 48 qt. how many pints ?
2. Harry had 132 marbles. He gave  $\frac{2}{3}$  of them to Ned,  $\frac{3}{2}$  to John, and 2 dozen to Will. How many had he left ?
3. 6 tons of coal cost \$27.06 ; find the cost of 1 ton.
4. Bought 6 lb. of sugar at 5 ct. a lb., 4 lb. of tea at \$.50 a lb., 6 lb. of butter at \$.25 a pound. What did all cost ?
5. How many times can you fill a gill cup from a jug holding  $1\frac{1}{2}$  gallon ?
6. A man had \$500 in the bank. He drew out \$25. Later he put in \$375 more. How much did he then have in the bank ?
7. One box held  $3\frac{1}{2}$  dozen lemons ; the other, 30 lemons. They were sold at 3 ct. each. What was received for them ?
8. How many cups holding a pint can be filled from a 3-gallon pail ?
9. Find the cost of a gallon and 3 qt. of syrup at 3 ct. a gill.
10. Johnnie worked a week and a half and received \$6.30 ; how much did he earn a day ?
11. Bought 3 gal. of oysters at  $\$1\frac{1}{2}$  a gallon. Sold at  $\$1\frac{1}{2}$  a quart. Did I gain or lose, and how much ?
12. 4 lb. of tea at \$.56 a pound will buy how many pounds of sugar at \$.07 a lb. ?

**Lesson 19.****TIME TABLE.**

60 seconds (sec.) 1 minute (min.).  
60 minutes 1 hour (hr.).  
24 hours 1 day (da.).  
7 days 1 week (wk.).  
4 weeks 1 month (mo.).  
12 months 1 year (yr.).  
52 weeks 1 year.  
365 days 1 year.

1. How many minutes in 36 hours ?
2. 427 days are how many weeks ?
3. 30 seconds are what part of a minute ?
4. How long does it take the hour-hand to go round the face of the clock ?
5. How many minutes in a school day of  $5\frac{1}{2}$  hours ?
6. How much oil do we use in 7 weeks if we use 1 qt. each evening ?
7. In 301 days how many weeks ?
8. In 6 hours how many minutes ?
9. In a week how many hours ?
10. In 480 hours how many half days ?
11. How many gills in 8 gal. 2 qt. 1 pt. ?
12. At \$.02 a gill, what will 4 gallons of oil cost ?
13. A farmer had 64 gal. of milk. He sold it at 4 ct. a quart. What did it bring ?

**Lesson 20.**

1. A boy earns \$7.50 a week. He spends \$4.50 a week for board, and \$1.00 a week for other needful things. How much money can he save in a year?

2. John gave a blind man  $\frac{1}{4}$  of a dollar; James gave him twice as much; Will gave him as much as John and James together. How much did all give him?

3. A man owes \$180. He pays \$6 a month. How many months will it take him to pay it?

4. John earns \$3 a day; how many weeks will it take him to earn \$72?

5. If \$960 are earned in one year, how much will be earned in one month?

6. Which is the greater, \$1, or 3 dimes, a nickel, two 5-cent pieces, and a quarter?

7. A boy earns \$12.60 a month; he spends \$1.25 a week. How much does he save in a month?

8. Fannie went to the store with a \$5 bill. She bought  $2\frac{1}{2}$  pounds of cheese at 12 cents a pound, 3 pounds of crackers at 9 ct. a pound, 8 pounds of sugar at 8 cents a pound. How much change should she receive?

9. Had 12 doz. balls. Sold  $\frac{2}{3}$  of them at \$.04 apiece, and the rest at \$.05 each. How much did I receive for all?

10. Tom earned \$.50 a day; how much will he earn in 5 weeks?

**Lesson 21.**

1. A man earned a dollar and a quarter a day; how much can he earn in a week?

2. Mr. B. bought a house for \$3700, paid \$400 for repairs, and then sold it for \$4500. What is the gain or loss?

3. Percy lost \$.42, which was  $\frac{1}{4}$  of his money. How much money had he at first?

4. Find the cost of  $6\frac{1}{2}$  yd. of cloth at \$1.88 a yard.

5. When turkey is \$.18 a pound, what will an 8-lb. turkey cost?

6. I had 1 gal. and 1 pt. of vinegar, and sold 3 qt. and 3 gills. How many gills were left?

7. What is the cost of 3 qt. of molasses at \$.09 a pint, and 9 lb. of sugar at \$.06 a pound?

8. Add 857 (9) 283 (10) \$208.40 (11) \$356.24

943	2075	32.03	35.09
268	298	26.07	2.15
207	963	18.94	30.05
976	859	236.29	5.16
888	876	28.15	<u>304.29</u>

12. Write in Roman 950, 580, 694, 263.  
13. Subtract \$2.98 from \$10, and multiply the difference by 70.

14. Write in figures  $\frac{4}{5}$  of DC.

15. From \$98 take \$69.78.

**Lesson 22.**

1. What is the largest number that can be written with three figures?
2. What is the smallest number that can be written with 4 figures?
3. Add the last two answers and write the result in words.
4. Where is the comma used in writing numbers? Where is the period used?

Write the following in figures, using the comma :

5. One thousand four hundred.
6. One thousand four hundred thirty-six.
7. One thousand thirty-six.
8. One thousand four hundred six.
9. One thousand six.
10. Twenty-one thousand four hundred thirty-six.
11. Twenty-one thousand thirty-six.
12. Twenty-one thousand six.
13. Five hundred thousand.
14. Five hundred thousand four hundred thirty-six.
15. Five hundred thousand thirty-six.
16. Five hundred thousand six.
17. Five hundred forty-nine thousand six.
18. Write in words 999; 1999; 1458; 1058.
19. 1408; 1008; 41,274; 41,074; 41,204.
20. 41,004; 561,000; 561,359; 438,059.
21. 438,009; 300,460; 561,359; 358,004.
22. 999,999; 500,400; 800,080; 40,650; 14,280.

**Lesson 23.—Sight Work.****DRY MEASURE.**

2 pints (pt.) make 1 quart (qt.).

8 quarts make 1 peck (pk.).

4 pecks make 1 bushel (bu.).

1. How many pints in 2 quarts ? 4 qt. ? 5 qt. ?
2. How many quarts in 2 pecks ? 4 pk. ? 9 pk. ?
3. How many pecks in 3 bushels ? 5 bu. ? 10 bu. ?
4. How many quarts in 20 pints ?
5. How many pecks in 40 quarts ?
6. How many bushels in 36 pecks ?
7. How many quarts in  $\frac{1}{2}$  a bushel ?
8. How many pints in a peck ?
9. Reduce 14 pecks to bushels and pecks.

**Written Work.**

10. In 2 bushels how many pints ?
11. Change 36 pecks to bushels.
12. In 64 quarts how many bushels ?
13. A farmer sold 24 pecks of beans at a dollar a bushel. What did he get for them ?
14. What will 7 pk. of cherries bring at 9 cts. a quart ?
15. A boy gathered 4 pk. of nuts, and sold them at \$2 a bushel ; what did he get ?
16. If a bushel of apples is worth \$1.20, what is a peck worth ? What is  $\frac{1}{2}$  peck worth ?

**Lesson 24.**

1. How many bushels, and how many quarts over, in 144 pints ?
  2. At \$.09 a quart, what will a bushel of peaches cost ?
  3. How many times can I fill a peck measure from 2 bu. of apples ?
  4. When 3 pencils cost \$.12, what will 1½ doz. cost ?
  5. How many pints in 16½ pecks ?
  6. Bought 8 bu. of apples and sold 12 pk.; how many quarts were left ?
  7. A peck is what part of a bushel ?
  8. At \$1.60 a bushel what will 3 pk. of apples cost ?
  9. Find the cost of 1½ bu. of apples at 25 ct. a peck.
  10. When apples are \$2.00 a bushel, what will ½ peck cost ?
  11. A bushel measure is  $\frac{3}{4}$  full; how many pints will it take to fill it ?
  12. How long will 16. bu. of oats last a horse if he is fed 4 qt. a day ?
- |                    |                 |                        |
|--------------------|-----------------|------------------------|
| 13. $8 \times 9$   | $265 \times 15$ | $\frac{1}{2}$ of 6876  |
| 14. $7 \times 6$   | $194 \times 95$ | $\frac{1}{2}$ of 7208  |
| 15. $11 \times 11$ | $763 \times 84$ | $\frac{1}{11}$ of 1210 |
| 16. $8 \times 8$   | $168 \times 59$ | $\frac{3}{4}$ of 6484  |
| 17. $9 \times 9$   | $695 \times 90$ | $\frac{5}{9}$ of 1872  |

**Lesson 25.**

1. What will 2 bu. 1 pk. 1 qt. of nuts cost at \$.05 a pint?
2. Find the cost of 2 pk. of meal at \$.07 a quart.
3. I have 10 barrels, each holding 4 bu. of apples, how many pecks have I?
4. Find the cost of 1 gal. 1 qt. 1 pt. 1 gill of vinegar at 2 ct. a gill.
5. I bought 3 pt. of milk; how many times could I fill a gill dipper?
6. How many cans, each holding a gill, can be filled from 3 qt. of jelly?
7. There are 476 children on the lower floor in this school and 389 children on the upper floor. How many more on the lower floor than on the upper floor?
8. There were 120 nuts in 3 bags. There were 50 in the first and 30 in the second; how many in the third?
9. Write two hundred fifty-eight thousand three hundred four.
10. Write five hundred six thousand forty.
11. Read 126,005; 40,059; 56,845; 274,896.
12. Find the quotient and product of 9804 and 12.
13. Find the quotient of 8496 and 12, the product of 930 and 78, and subtract 897 from 900.
14. What is the difference between  $\frac{2}{3}$  of 84 and  $\frac{3}{4}$  of 56?

**Lesson 26.**

1. A farmer received \$41.60 for poultry, \$125 for a horse, \$3.12 for eggs, \$5.55 for cheese. What was the cost of all?
2. A man had \$15. He paid for 3 weeks' board at \$3.89 a week. How much has he left?
3. How many tops at \$.07 each can I buy for \$5.67?
4. If \$1.28 is the cost of 4 lb. of butter, what is the cost of 7 lb.?
5. Reduce 6 gal. 3 qt. 1 pt. to pints.
6. At \$.36 a dozen, what will 16 oranges cost?
7. When apples sell for 49 ct. a peck, what will  $\frac{1}{2}$  bu. cost?
8. From a bushel basket of oats Willie fed his horse  $1\frac{1}{2}$  pk. How many quarts are left?
9. Bought a house for \$1600. For what must I sell it to gain \$160?
10. If a lemon costs \$.02, and an orange \$.05, what will a dozen of each cost?
11. From  $\frac{2}{3}$  of 488 take 140.
12.  $\frac{2}{3}$  of 120  $\times \frac{1}{2}$  of 90 = ?
13. Add  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ , and  $\frac{1}{12}$  of 120?
14. Add  $\frac{1}{2}$ ,  $\frac{1}{3}$ , and  $\frac{1}{4}$  of 160.
15. To  $\frac{1}{2}$  of 850 add 175.
16. From 200 take  $\frac{2}{3}$  of 150.
17. Add  $\frac{1}{2}$ ,  $\frac{1}{3}$ , and  $\frac{1}{12}$  of 108.
18. Add  $\frac{1}{2}$ ,  $\frac{1}{3}$ , and  $\frac{1}{10}$  of 140.

**Lesson 27.**

1. From \$20 take 5 dimes, a dollar and a half, four nickels, and \$2.01.
2. What must be paid for 7 doz. eggs at \$.02 apiece ?
3. How many quarts in 300 pt. ?
4. 64 quarts will make how many gallons ?
5. In 144 qt. how many gallons ?
6. 160 pt. are how many gallons ?
7. How many gallons in 64 gills ?
8. In 96 gills how many gallons ?
9. A man earns \$18 a week ; how much is that a month ? A day ?
10. Tom earns \$8 a month chopping wood ; what will he have in a year.
11. If you put \$2 a month in your bank, what will you have in a year ?
12. If a man earns \$600 a year, how much is that a month ?
13. How many hours in a school week ?
14. 205 is the dividend, 5 the divisor ; what is the quotient ?
15. 198 is the dividend, 6 the divisor ; what is the quotient ?
16. If 3 pk. of plums cost \$1.44, what is the price of a quart ?
17.  $\$95.26 \times 36$        $\frac{1}{2}$  of \$3078       $\$500 - \$193.56$
18.  $\$21.68 \times 9$        $\frac{1}{2}$  of \$564       $\$658 - \$100.09$

**Lesson 28.**

1. A dozen tablets cost 96 ct. Find the cost of 10 tablets.
  2. What cost 7 books at  $\frac{1}{2}$  dollar apiece, and  $\frac{1}{2}$  doz. chairs at  $\$3\frac{3}{4}$  apiece?
  3. If 3 lemons cost 12 ct., what will 2 lemons cost?
  4. How many gallons in 2 doz. bottles, each holding a pint?
  5. Into how many bunches containing 10 bananas each can you separate 600 bananas? At \$.72 a bunch, what would they cost? If the grocer sold them at \$.04 each, did he gain or lose, and how much?
  6. Frank paid \$.80 for peas at \$.05 a quart. How many pecks did he buy?
- |  |                              |                        |
|--|------------------------------|------------------------|
| 7. $48 \times 66$  | 206 $\times$ 29              | 43 $\times$ 29         |
| 8. 197 $\times$ 43   | 29 $\times$ 72               | 89 $\times$ 29         |
| 9. $12 \overline{) 2076}$                                  | $$.05 \overline{) \$305.05}$ | $11 \overline{) 2981}$ |
| 10. $\$28.56 + \$290 + \$429 + \$97.46 + \$89 + \$95 = ?$  |                              |                        |
| 11. Write in words 17,210; 36,504; 256,006.                |                              |                        |
| 12. $341 - 56 - 64 - 29 - 16 - 4 = ?$                      |                              |                        |
| 13. $5 \times 5 \times 4 \times 10 \times 6 \times 15 = ?$ |                              |                        |
| 14. $24 \times 86 \times 10 = ?$                           |                              |                        |
| 15. $38 \times 45 \times 20 = ?$                           |                              |                        |
| 16. $86 \times 73 \times 10 = ?$                           |                              |                        |
| 17. $259,164 + 137,286 + 43,175 = ?$                       |                              |                        |
| 18. $111,295 + 237,259 = ?$                                |                              |                        |

**Lesson 29.**

1. How many minutes in 12 weeks?
2. Ned traded a kite worth \$.90 for a pair of doves worth \$.35 each. Did he gain or lose and how much?
3. May had 56 plums. She gave  $\frac{1}{2}$  of them away and ate  $\frac{1}{4}$  of them. How many had she left?
4. In 1876 a man was 35 years old. How old will he be in 1892?
5. Henry had 39 marbles, Will  $\frac{1}{3}$  as many, and Joe 3 times as many as Henry. How many had all?
6. How many hours in 365 days?
7. How many nines must be added together to make 288? To make 549?
8. A man made a fence across a garden that is 10 yd. wide. If he put the posts 2 yards apart, how many posts did he use? (Illustrate.)
9. A man who died in 1886 was 53 years old; when was he born?
10. If a boy writes 256 words in school each day, how many words will he write in 3 weeks?
11. If  $\frac{1}{2}$  a pint of oil lasts one night, how many gallons will I use in 4 weeks?
12. How many quarts in  $1\frac{1}{2}$  bushels?
13. If 2 bushels of potatoes cost \$2.40, what will a peck cost?
14. 427 days are how many weeks?
15. Add 15, 9, 476, 17, 56.

**Lesson 30.**

1. Find the cost of 5 bushels of apples at \$.35 a peck and 3 dozen eggs at \$.24 a dozen.
2. In 6 hours how many minutes?
3. How long does it take the minute hand to go round the face of the clock?
4. What is the seventh part of 574?
5. How many minutes in  $\frac{1}{4}$  of an hour?
6. What cost 3 pk. 4 qt. of chestnuts at \$.20 a peck?
7. Eugene is 21 years old now; how old will he be in 18 years from now?
8. What cost 9 qt. 1 pt. of vinegar at \$.05 a pint?
9. How many gallons of milk will a family use in 2 months, if they use 2 qt. a day? What will the milk cost at \$.05 a quart?
10. Change 256 pt. to gallons.
11. What cost  $3\frac{1}{2}$  gal. of ink at \$.40 a pint?
12. Write in Roman 569; 784; 856; 480.
13. DCCXVI., XCVIII., CCCXVI.
14. Count from 6 to 96 and back by 9's.
15. What four equal numbers make 1608?
16.  $\$6.75 + \$8.34 + \$9.27 + \$2.05 + \$11 + \$.29 = ?$
17.  $\$8\frac{1}{4} + \$16\frac{1}{2} + \$5.87 + \$14.29 + \$63\frac{1}{2} = ?$
18.  $329 \times 16$        $42,650 - 1305$        $\frac{\$}{\$}$  of 1560
19.  $482 \times 24$        $12,960 - 289$        $\frac{\$}{\$}$  of 9645
20.  $695 \times 15$        $111,111 - 1111$        $\frac{\$}{\$}$  of 9999

**Lesson 31.****AVOIRDUPOIS WEIGHT.**

16 drams (dr.) make 1 ounce (oz.).

16 ounces make 1 pound (lb.).

How many ounces in 6 pounds ? 8 lb. ?

How many drams in 4 ounces ? 9 oz. ?

1. 96 dr. are equal to how many half ounces ?

2. 48 lb. equal how many ounces ?

3. Reduce 32 oz. to pounds.

4. Reduce 94 dr. to ounces and drams.

5. How many drams in 5 lb. ?

6. How many pounds in 96 oz. ?

7. If one ounce of candy costs \$.04, what will 6 lb. cost ?

8. What will be the cost of  $\frac{1}{4}$  of a lb. of candy at 40 ct. a pound ?

9. How many 2 ounce packages can be made from 8 lb. of candy ?

10. In 2 lb. 5 oz. 4 drams how many drams ?

11. At 2 ct. an ounce what will 5 lb. of nutmegs cost ?

12. How many ounces in 256 pounds ?

13. Ella paid \$.12 for two ounces of candy. What would one pound cost at the same price ?

14. Paid 4 ct. a pound for 2 sacks of buckwheat holding  $5\frac{1}{2}$  lb. each. What was the cost ?

15. Mr. R. bought a turkey weighing 7 lb. at \$.18

d. What did it cost him ?

**Lesson 32.**

1. At \$.04 an ounce what will 3 pounds of candy cost?
2. At 12 cents a pound, how many pounds of beef will \$17.28 buy?
3. One pound of candy costs 48 cents. Find the cost of 7 ounces.
4. Mary paid \$7 for a dress, \$3 for a hat, and \$2.50 for a pair of shoes. How much change should she get back from a double eagle?
5. A book costs \$8.75, and a holder  $\frac{1}{2}$  as much. How much for both?
6. Find the cost of
  - 1 bu. apples @ 39 ct. per peck.
  - $5\frac{1}{2}$  lb. sugar @ 8 ct. per pound.
  - $4\frac{1}{2}$  lb. meat @ 9 ct. per pound.
  - $1\frac{1}{2}$  gal. oil @ 8 ct. per gallon.
7. How many quart cans can be filled from  $4\frac{1}{2}$  gallons?
8. I buy 3 pt. of milk a day. What is my milk bill for a month at 5 ct. a quart?
9. Add \$35.64, \$15.09, \$18.29, \$34.20, \$16.48.
10. Count from 6 to 94 and back by 8's.
11.  $156 \times 45$        $1894 - 736$        $12,640 \div 5$
12.  $389 \times 72$        $18,924 - 2632$        $6944 \div 8$
13.  $854 \times 26$        $2890 - 459$        $28,940 \div 4$
14.  $238 \times 37$        $26,954 - 250$        $29,848 \div 7$
15.  $\frac{1}{4}$  of 108 less  $\frac{1}{3}$  of 45 = ?

**Lesson 33.**

1. What will be the cost of 640 quarts of blackberries at \$1.60 a bushel?
2. John had  $\frac{1}{2}$  bu. of nuts. He sold 1 peck for 50 ct. and the remainder at 10 ct. a quart. How much did he receive?
3. From a gallon of milk, 4 gills leaked out, 2 pt. were given away, and the remainder sold at 6 ct. a quart. How much was received?
4. I give my horse 6 pints of oats a day. How long will 3 bu. last?
5. When cherries sell for \$.67 a peck, what will 2 bu. cost?
6. How many pints in 2 bu. 2 pk. 5 qt. 1 pt.?
7. A boy picked 4 pk. of beans and sold them at \$.06 a quart. How much did he receive?
8. Write in figures fifty-six thousand eight hundred ninety-four.
9. Read 489,006; 36,420; 498,720; 365,002.
10. Write in Roman 1000; 269; 364; 982.
11.  $946 + 684 + 498 + 684 + 376 = ?$
12. Add \$13.09; \$490; \$.09; \$4.04; \$384.05; \$25.08.
13. Subtract the difference between 984 and 372 from the sum of 2582 and 287.
14.  $384 \times 26$
15.  $892 \times 48$
16.  $738 \times 89$
17.  $364 \times 28$
18.  $962 \times 49$
19.  $248 \times 24$
20.  $364 \times 86$
21.  $282 \times 53$
22.  $741 \times 27$

**Lesson 34.**

1. Bought 2 rolls of butter containing  $4\frac{1}{2}$  lb., each for 24 ct. a pound. What was the cost?
2. What will 6 lb. 8 oz. of cheese cost at \$.06 a half pound?
3. From 8 lb. of honey  $3\frac{1}{2}$  lb. were sold, how many pounds were left?
4. How many drams in  $6\frac{1}{2}$  oz.?
5. How many ounces in  $3\frac{1}{2}$  lb.?
6. At a party of 26 children, each child received  $\frac{1}{2}$  pound of candy. How much candy was given away?
7. How old is a man if he was born in 1800 and died in 1891?
8. At \$.05 a quart, how many quarts of peanuts can I buy for \$4.50 and have \$.50 left?
9. Find the cost of a peck of nuts at 8 ct. a quart.
10. How many quarts will it take to fill a bag holding  $1\frac{1}{2}$  pk.?
11. What is  $\frac{1}{4}$  of \$106.74?
12. The divisor is 9, the quotient 16; what is the dividend?
13. Write in words 42,048; 369,506; 86,948.
14. Add two unequal numbers to make 50.
15. How many fifths in one?
16. \$18 is  $\frac{1}{3}$  of a man's wages for a month; how much is the whole of his wages?

**Lesson 35.**

1. How many quarter-pound packages of spice can be made from 320 ounces ?
2. In 34 lb. how many drams ?
3. Write in words the answer to the last example.
4. How many pounds of sugar at \$.06 a pound must be given for 120 bu. of potatoes at \$.30 a bushel ?
5. What will  $\frac{1}{2}$  lb. of tea cost if 1 lb. costs \$1 ?  
What will  $\frac{1}{4}$  lb. cost ?
6. How many bags, each holding  $\frac{1}{4}$  of a pound, can be filled from 5 pounds of nuts ?
7. How many times can a quart cup be filled from 3 bu. of chestnuts ?
8. How many pints in 8 gallons ?
9. Find the cost of  $1\frac{1}{2}$  gal. and  $1\frac{1}{2}$  qt. of milk at 1 cent a gill.
10. How many pint bottles will be required to hold 6 gal. 3 qt. of syrup ?
11. Find the cost of  $3\frac{1}{2}$  lb. of beefsteak at \$.16 a pound and 8 lb. of sugar at \$.07 a pound. Give a two dollar bill and tell how much change you should receive.
12.  $39,601 - 17,982 = ?$
13.  $\frac{1}{3}$  of 96  $\times \frac{2}{3}$  of 120 = ?
14.  $\frac{2}{3}$  of 147 + 165 = ?
15.  $250 \div \frac{2}{3}$  of 25 = ?
16.  $\frac{3}{4}$  of 450 -  $\frac{1}{4}$  of 64 = ?

**Lesson 36.**

1. How many hours are there in a week?
2. If you can buy 6 cards for a cent, how many can you buy for \$.15?
3. If \$840 are earned in 8 months, how much is that for 6 months?
4. John earned \$.75 one day, three times as much the next, and 5 times as much the next. How much did he earn in all?
5. A ton of coal costs \$5.10. What will  $\frac{1}{2}$  of a ton cost?
6. 30 oranges,  $1\frac{1}{2}$  doz. oranges, and  $1\frac{1}{2}$  doz. oranges were sold for 3 ct. each. What was received for them?
7. I bought 3 chairs at \$7 each, 2 at \$12 each, and a sofa for \$15. What did all cost?
8. James paid  $3 \times \$11$  for a suit of clothes. What was the cost?
9. In what year was a man born who died in 1885, aged 97?
10. Bought a cow for \$35.50, a horse for \$175, and paid \$189.25 down. How much do I still owe?
11. A man had 36 books; he sold 24. What part of the whole had he left?
12. If an engine can go 8 miles in  $\frac{1}{2}$  of an hour, how far will it go in an hour?
13. A man earns \$75 a month. If he spends \$687, how much will he save in a year?

**Lesson 37.**

1. If you pay \$.05 an ounce for candy, what will 2 lb. cost?
2. In 96 ounces how many half pounds?
3. Paid \$.32 for  $\frac{1}{2}$  pound of tea. What is the cost of one ounce?
4. When cider is \$.05 a quart, what will 4 gallons cost?
5. What would be the cost of 24 gal. of ink at \$.12 a pint?
6. What must I pay for 12 gal. 3 qt. of maple syrup at \$.10 a quart?
7. In 100 bu. how many quarts?
8. How many thirds in 5?
9. What will 4 jars of butter, each containing 25 lb., cost at \$.36 per pound?
10. Find the cost of  $\frac{1}{4}$  lb. tea at \$1.00 a lb. and  $\frac{3}{4}$  lb. butter at \$.24 a pound. .
11. Change 46 lb. to drams.
12. Cloves are \$.05 an ounce. What will 8 lb. cost?
13. Add  $\$126\frac{1}{2}$ ,  $\$50\frac{1}{2}$ ,  $\$27\frac{1}{2}$ .
14. To  $130 + 5$  add  $108 \div 9$ .
15. Add 72, 36, 18, 275, 649, 91.
16. To  $132 \div 12$  add  $140 - 75$ .
17. Take the difference between 75 and 36 from their sum.
18. Add  $\frac{2}{3}$  of 186 to  $\frac{3}{4}$  of 132.

**Lesson 38.**

1. A tea-cup cost 50 ct., a saucer 38 ct., a plate 9 ct., and a pitcher 62 ct. Find the cost of all.
2. Find the cost of 32 tablets at \$.12 each and 19 pencils at \$.07 each.
3. Bought 4 doz. oranges at \$.20 a dozen, sold them at \$.02 each. How much was made?
4. A man having \$29.60, spent \$7.80 for a coat and \$3 for a hat. How much had he left?
5. A man sold  $\frac{2}{5}$  of 250 sheep at \$10 each. What did they bring?
6. Find the cost of  $3\frac{1}{2}$  lb. of beefsteak at \$.16 a pound and 4 chickens at \$1.25 each.
7. How broad is a pond that is 154 ft. half way across? (Illustrate.)
8. Mary earns \$500 a year. She saves  $\frac{1}{10}$  of it. How much does she save?
9. A barrel of flour costs \$10.50. What must I pay for  $\frac{1}{2}$  of a barrel?
10. Add 3684, 2872, 25, 8, 326, 259.
11.  $\$684.09 - \$364.01 - \$25.36 - \$5.04 - \$.13 = ?$
12.  $3651 \times 25$        $369 \times 24$        $289 \times 97$
13.  $269 \times 98$        $484 \times 86$        $642 \times 76$
14.  $463 \times 76$        $728 \times 94$        $899 \times 49$
15. Write in words the answers of the last three problems.
16. Write in Roman 695, 876, 954, 989.
17. XC VIII., DCXCI., DCCCXCIX., LVIII.

**Lesson 39.**

1. A man who carried 56 eggs to the market found  $\frac{1}{8}$  of them broken. How many were broken and how many were sound?
2. In one year how many hours?
3. If 7 desks cost \$105, what will 25 desks cost? 105 desks?
4. In 12 years how many weeks?
5. How many school-days in 19 weeks?
6. Nell is 4 years old, and Will is 9 years old; their uncle is as old as twice the sum of their ages. How old is their uncle?
7. How many 4 oz. packages can you make from 6 lb. of candy?
8. If  $\frac{1}{2}$  lb. candy costs 16 ct., what is that an ounce?
9. Reduce 3 lb. 4 oz. 9 dr. to drams.
10. A farmer had 96 qt. of beans. How many pecks had he?
11. Find the cost of 3 pecks of peas at 8 ct. a quart?
12. From a hogshead containing 63 gal. of vinegar, 29 qt. were taken out. How many quarts remained in it?
13.  $9900 - 4672 - 2748 = ?$
14. Multiply 90 by  $24\frac{1}{2}$ .
15. How many twelves in 384?
16. 8 times 7; 8; 4; 6; 11; 9; 12; 3.

**Lesson 40.**

1. If a man earn \$65 a month, how much will he earn in a year?
2. At \$.49 a yard what will  $15\frac{1}{4}$  yd. cost?
3. How many working days in 39 weeks?
4. What is the product of 136 and 52?
5. What is the difference between  $\frac{2}{3}$  of \$144 and 5 twenty-dollar gold pieces?
6. A girl had \$1.50. She spent  $\frac{1}{2}$  of it for a doll,  $\frac{1}{4}$  for a game, and kept the rest. How much did she keep?
7. Willie bought a suit of clothes for \$17.25, a hat for \$2, and a pair of shoes for \$3.25. He had \$25. What did he have left?
8. Two desks cost \$1.50, what were three desks worth? 2 dozen desks?
9. \$12.40 was divided among 4 boys. What did each one get?
10. A wagon was bought for \$125 and a harness for  $\frac{2}{3}$  of that sum. What did both cost?
11.  $49 \times 28 + 39 \times 46 = ?$
12.  $95 \times 28 - 36 \times 19 = ?$
13.  $44 + 196 + 3462 + 1675 + 96 = ?$
14.  $\$978 + \$35.68 + \$296.52 - \$309 = ?$
15.  $\frac{1}{11}$  of 232       $\frac{1}{11}$  of 154       $\frac{1}{11}$  of 220
16.  $\frac{1}{12}$  of 144       $\frac{1}{12}$  of 108       $\frac{1}{12}$  of 252
17. Multiply \$29.46 by 32 and to the product add \$200.

**Lesson 41.****LONG MEASURE.**

12 inches (in.) make 1 foot (ft.)

3 feet make 1 yard (yd.)

1. How many inches in 2 ft. ? 5 ft. ?
2. How many feet in 3 yd. ? 5 yd. ? 7 yd. ?
3. How many inches in a yard ?
4. How many feet in 12 yd. ? 40 yd. ?
5. In 360 inches how many feet ?
6. In 3600 feet how many yards ?
7. Reduce 3 yd. 2 ft. to feet.
8. Change 4 yd. 1 ft. 9 in. to inches.
9. How many inches in  $2\frac{1}{4}$  yd. ?
10.  $1\frac{1}{2}$  yd. of copper wire in one piece and 1 yd. in another were sold at 13 ct. a foot. How much money was received ?
11. 27 in. in one piece of ribbon,  $1\frac{1}{2}$  yd. in another,  $\frac{1}{2}$  yd. in another, sold for 2 ct. an inch. How much was received ?
12. In  $16\frac{2}{3}$  ft. how many inches ?
13. How many pieces, each 3 in. long, can be cut from 9 ft. of wire ?
14. In 720 in. how many feet ?
15. At 2 cents a foot, what will a rope 360 in. long cost ?
16. Find the cost of 420 ft. of lace at  $\$1\frac{1}{2}$  a yard ?
17. A man bought a cow for \$50. He sold it for \$61. How much money did he make ?

**Lesson 42.**

1. How many inches in  $6\frac{1}{4}$  feet?
2. How many feet around a room 20 ft. long, 15 ft. wide? How many inches around it? (Illustrate.)
3. A boy shoots an arrow 97 yd. up the street, and another 64 yd. down the street. How many yards will he have to walk to bring them both back again?
4. How many feet of fence will be required to enclose a lot that is 108 ft. long and 76 ft. wide? (Illustrate.)
5.  $\frac{2}{3}$  of a coil of wire containing 7236 ft. was sold. How much remained?
6. Bought 6 yd. of cloth for \$24 and sold it at \$3 a yd. How much did I gain or lose?
7. Find the cost of 372 ft. of lace at 17 ct. a yd.
8. If a grocer paid \$10.80 for 9 gal. of oysters, how much did he pay for a gallon?
9. How many gills in 19 pints?
10.  $4625 + 364$        $5875 \times 94$        $16407 \div 9$ .
11.  $8972 + 482$        $6005 \times 49$        $155000 \div 8$ .
12. Write problems for the last 3 examples.
13. Write in figures two hundred sixty-four thousand nine hundred eight.
14. Write in words 56,954; 300,005; 25,006.  
Subtract \$950.86 from \$1200.  
 $\$89.76 + \$49.58 + \$95 + \$56 + \$93 + \$18.97$ .

**Lesson 43.**

1.  $89 \text{ ft.} + 46 \text{ ft.} + 312 \text{ in.}$  equal how many inches ?
2. Divide 12,067 by 11. 46,236 by 12.
3. A man had 5 bu. of nuts. He sold  $\frac{1}{2}$  of them at \$.08 a quart. How much did he get ?
4. 17 bu. + 14 pk. + 35 pt. equal how many pints ?
5. How many mills in \$.95 ?
6. Multiply 49 by 50; 368 by 48.
7. Divide 6744 by 12.
8. Add 49, 37, 46, 58, 2075, and 19.
9. 66 gal. + 45 qt. - 200 gills equal how many gills ?
10.  $\$98 \times 39 - \$425.69$  equals what ?
11. At \$.03 an ounce what is the cost of 12 lb. of coffee ?
12.  $\$38 + 45$  cents are how many cents ?
13.  $\$96.78 + \$38.49 + \$50.49 + \$.68 + \$.95 = ?$
14. 14 bu. equal how many pints ?
15. Write in words 701, 268, 469, 208, 560, 250.
16. 96 lb. - 2469 dr. equal how many drams ?
17. Bought a chair for \$18.90 and a table for \$20. How much more was the table than the chair ?
18. A boy bought a bicycle for \$80; he sold it for \$65.50. How much did he lose ?
19. A wagon was bought for \$75.25. It was sold for \$80. How much was made ?
20. To  $132 \div 12$  add  $140 - 75$ .

**Lesson 44.**

1. In 55 inches how many feet and inches ?
2. Change 108 inches to yards.
3. How many steps 2 ft. long will Max take in walking 108 yards ?
4. In 92 feet how many yards and feet ?
5. A lady put 4 qt. 1 pt. 3 gills of currant wine into 3 bottles. How much did she put into each bottle ?
6. If a barrel holds 2 bu. 3 pk., how many barrels will hold 88 pk. of apples ?
7. What part of 4 bu. are 2 bushels ?
8. In  $5\frac{1}{2}$  yards how many feet and inches ?
9. John runs 320 yards east and James runs 450 yards west. How far are they apart ? (Illustrate.)
10. Two trains leave Syracuse at 10 A.M. One goes east and the other west. One travels 40 miles an hour and the other 50. How far apart are they in 2 hours ?
11. Find the cost of  $19\frac{1}{2}$  lb. of meat at \$.12 a pound.
12. What is the cost of  $\frac{3}{4}$  lb. of tea at \$1 a lb. and  $\frac{3}{4}$  lb. of butter at \$.24 per pound ?
13. If \$840 are earned in one year, how much will that be a month ?
14. Find the product of 16 and 18 ; 156 and 79 ; 69 and 54.
15. Write in figures twelve thousand twelve.

**Lesson 45.**

1. What is the cost of  $9\frac{1}{4}$  yd. of cloth at \$1.12 a yard?
2. At \$.98 each, what is the cost of 28 chairs?  $3\frac{1}{2}$  doz. chairs?
3. Multiply 183 by 13.
4. Subtract \$29.71 from \$182.
5. A man earns \$21.00 a week; how much is that a day?
6.  $\frac{1}{4}$  of \$280 = ?       $\frac{1}{4}$  of 560 = ?
7. At \$.08 a yard, how many yards of cloth can be bought with \$2.80?
8.  $\$900 - (\$38.49 + \$.99) = ?$
9. What is the cost of 19 lb. of coffee at \$.56 a pound?
10. How many days in 19 school-weeks?
11. How many days in 25 weeks?
12. At \$.30 a pound, what will  $27\frac{1}{2}$  pounds of butter cost?
13. Lucy had \$.98, her brother had 3 times as much, and her sister had 9 quarters. How much had all?
14. A bushel of apples was worth \$1.20. What would  $\frac{1}{2}$  peck be worth?
15. If 3 pecks of plums cost \$1.44, what is a bushel worth?
16. If a bushel of tomatoes cost 64 cents, what are 3 pk. worth?

**Lesson 46.**

1.  $\$76.29 - \$67.34 = ?$     $\$446.94 + 6 = ?$
2. A box holds 10 oz. of candy. How many ounces will 8 boxes hold?
3. How many ounces in  $\frac{1}{8}$  of 4 lb.?
4. Change  $95\frac{1}{2}$  oz. to drams.
5. Change 16 lb. to drams.
6. At \$.25 a lb., what is the cost of 17 lb. of butter?
7. Write in figures seventeen thousand two hundred.
8. Reduce 29 lb. to drams;  $39\frac{1}{2}$  lb. to drams.
9.  $\$274.60 - \$78.28 \times 26 = ?$
10. At \$.02 an ounce, what would 2 lb. of tea cost?  $4\frac{1}{2}$  lb.?
11. How many working days in 64 weeks?
12. If 3 oranges cost \$.05, what is the cost of 21 oranges?
13. At \$.03 apiece, what is the cost of  $8\frac{2}{3}$  doz. bananas?
14. Change  $16\frac{1}{4}$  lb. to ounces.
15. How many nines in 7002?
16. Multiply 4 hundred sixteen by forty-seven.
17. Subtract the sum of 486 and 296 from 1000.
18. Reduce 348 inches to feet; to yards and feet.
19.  $2000 - 220 - 346 - 234 = ?$
20. 49 ft. + 29 in. equal how many inches?
21. How many ounces in 14 lb.? In  $20\frac{1}{4}$  lb.?

**Lesson 47.**

1. The string of Joe's kite is 60 ft. long ; the string of Frank's is 75 ft. long. If tied together, how much would they lack of being 1000 ft. long ?
2. Find the cost of  $1\frac{1}{2}$  yd. of tape at 6 ct. per yard.
3. Add  $\$6\frac{1}{2}$ ,  $\$7\frac{1}{2}$ ,  $\$4$ ,  $\$.62$ , 2 dimes and 3 half-dimes.
4. How many packages, each containing 4 oz., can I make from 4 lb. of candy ?
5. John had \$6, James three times as much, Thomas as much as both. How much have all ?
6. Nell had  $\$4$ , May  $\$2\frac{1}{2}$ , and Edward as much as both the girls. How much had all ?
7. What would Mrs. Smith's bill come to if she bought 3 lb. steak at  $\$.14$  a pound, 20 lb. sugar at 9 ct. a pound,  $\frac{1}{2}$  bu. potatoes at  $\$.76$  a bushel, 3 heads of lettuce at 4 ct. a head, and 2 cans of corn at  $\$.12$  a can ?
8. Write in words 486,004 ; 369,056 ; 287,500.
9. Write in figures three hundred six thousand one hundred twenty-eight.
10. Count from 11 to 101 and back by 6's.
11. Write in Roman 369, 964, 389.
12.  $2642 \times 36$       10,000 – 387       $\frac{1}{2}$  of 6955
13.  $3948 \times 84$       46,953 – 999       $\frac{1}{2}$  of 2968
14.  $1726 \times 43$       16,480 – 304       $\frac{1}{2}$  of 2103
15.  $938 \times 87$       19,502 – 1892       $\frac{1}{2}$  of 2106

**Lesson 48.**

1. \$.75 is  $\frac{1}{2}$  of my money; how much have I? How much is  $\frac{1}{2}$  of it?
2. 6 baskets containing 30 eggs each were sold for 26 ct. a dozen. How much was received?
3. A man saves \$9 a month and his son  $\frac{1}{2}$  as much. How much will they save in a year? In a year and a half?
4. Cloves cost 8 ct. an ounce. Find the cost of  $1\frac{1}{2}$  pounds.
5. Paid \$.25 for a book, \$.02 for a pencil, \$.52 for paper, and \$.12 for ink. Find the cost of all.
6. One-fourth of a bushel of apples was sold. How many quarts are left?
7. A girl took  $\frac{1}{4}$  of a gallon of oil to fill the lamps. How many pints were left in the can?
8. How many times will a pint cup be needed to fill 72 qt. cups?
9. There are 24 gallons of water in a barrel. At a cent a quart, what will a boy earn dipping it out?
10. A family uses 2 quarts of milk a day. What will it cost them for a week at 6 ct. a quart?
11. How many pints will it take to fill a peck measure?

**Lesson 49.**

1. Three vessels sailed for America with emigrants. In the first vessel there were 132 men, 105 women, and 57 children; in the second 89 men, 43 women, and 24 children; in the third 57 men, 34 women, and 14 children. In the first vessel 15 persons died; in the second 9 people were washed overboard, and the third vessel was wrecked and all on board lost but 17. How many got safe to America?

2. A grocer bought 20 gal. of molasses for \$16. He sold it at \$.12 a pint. Did he gain or lose, and how much?

3. A man bought a 32-quart crate of berries for \$2.88, and sold them for \$.13 a quart. Did he gain or lose, and how much?

4. If chocolate drops are sold at the rate of 2 oz. for \$.05, what will 2 lb. cost?

5. At \$.25 a dozen, what will 108 buttons cost?

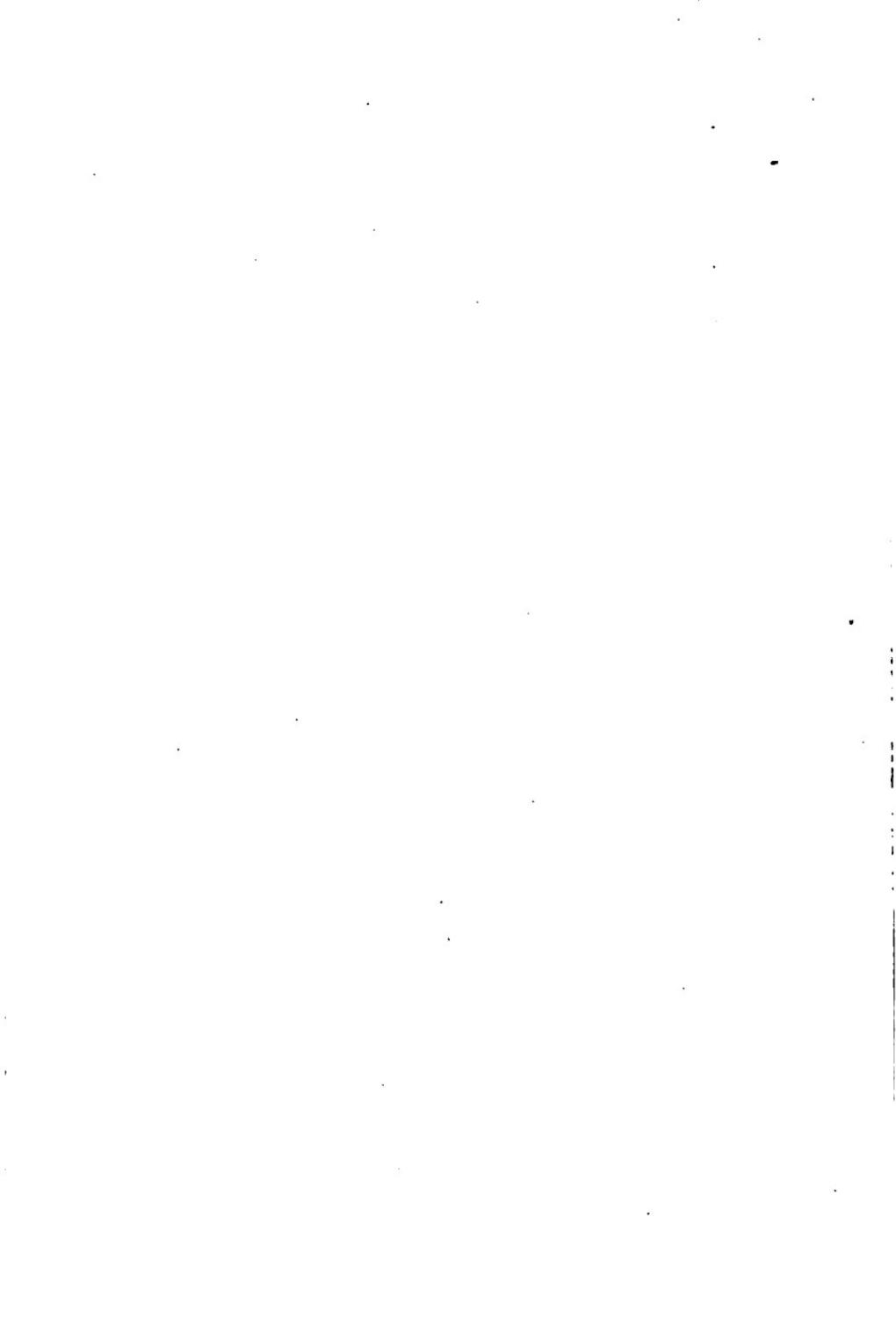
6. Mary and Julia gathered 12 pecks of nuts. They sold them for 6 cents a quart, and each took  $\frac{1}{2}$  the money. What did each girl get?

7. In what time will a boy, at 30 ct. a day, earn as much as a man earns in 30 days, at \$1.50 a day?

8. A fruit dealer bought 6 barrels of apples at \$2 a barrel. If there were 975 apples in each barrel, how much did he gain by selling them at the rate of 1 cent apiece?

**Lesson 50.—Test Work.**

1. Add 27, 84, 54, 107, 249.
2.  $736 - 278 = ?$     $944 + 8 = ?$
3.  $163 \times 5 - 208 = ?$
4.  $\frac{3}{4}$  of 637 +  $\frac{1}{4}$  of 156 = ?
5. What will 14 books cost if \$2 will buy 5 books?
6. How many pieces, each 4 inches long, can be cut from 8 feet of wire?
7. How many bags will it take for 12 pounds of candy if one bag holds 4 ounces?
8. What is the cost of 7 fans at  $\$1\frac{1}{2}$  each and  $\frac{1}{2}$  dozen pictures at  $\$3\frac{1}{2}$  each?
9. From a half-bushel of beans a grocer sold a peck; how many quarts had he left?
10. Find the difference between one hundred ten dollars and ninety-six dollars thirty-two cents.
11. Write in words 219,047.
12. Write in figures one hundred ninety thousand seven hundred.
13. How many pints in 18 gallons?
14. Sold 7 horses for \$861. How much did I get for each horse?
15. What will 96 lamps cost at \$15 each?
16. In 1882 John was 6 years old. How old is he now?
17. Write CCXLIV. in figures.
18. Write 159 in Roman.







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